Logistics Management Institute

Using Automation to Monitor and Report Hazardous Waste Disposal Costs

A Mission-Critical Obligation

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Executive Summary

Controlling, monitoring, and reporting hazardous waste disposal costs has become increasingly important as environmental problems arise, costs escalate, and budgets contract. In FY94, the U.S. Army, Europe (USAREUR), spent more than $24 million for hazardous waste disposal, nearly one-third of its total environmental budget. Tracking hazardous waste disposal transactions and their costs is an essential component of the USAREUR environmental management program.

For many disposal transactions, as in the case in USAREUR, a manual system of tracking the thousands of documents involved in hazardous waste disposal becomes inordinately time-consuming and more complex with each additional transaction.

An effective system that monitors hazardous waste transactions would benefit managers and the environmental program. It would enable managers to provide reasonable budget estimates, gain an accurate picture of their environmental programs, ensure that hazardous waste is disposed of properly, assess accurate and timely charges to tenant organizations for hazardous waste disposal, and quickly and accurately reconcile invoices.

The Obligation Disposal Monitor (ODM) program was developed to address monitoring and reporting needs for the 26th Army Support Group (ASG) in Heidelberg, Germany. Later, it was implemented voluntarily by many of the other ASGs in Germany. ODM was designed and implemented in stages so that the development effort could continue while the field still would have a useful tool of earlier versions of ODM with which to work. Although developed as a transaction processing program, the information ODM gathers can be aggregated and displayed to provide executive-level information. For example, it enables USAREUR environmental staff members to examine different waste streams, thereby providing the information necessary to further develop and track the USAREUR pollution prevention program.

In order to take maximum advantage of the benefits available from the ODM program and to avoid the shortcomings of manual processing, we recommend that USAREUR do the following:

- Require all ASGs, assigned Base Support Battalions (BSBs), and the 200th Theater Army Material Management Command within USAREUR to use the ODM program software.

- USAREUR Headquarters should require each BSB or ASG to send their *Allocation Status Report* and *Contract Status Report* to headquarters on a monthly basis.

- Require each BSB or ASG to submit its ODM data set quarterly.

- Use ODM's *Obligation Report by Ship From* to bill tenant organizations.

Contents

Acknowledgement

We would like to acknowledge the help of Ms. Lisa Smith of the 26th Army Support Group for providing us the feedback and resources to make this a successful project.

Chapter 1
Responsibility for Hazardous Waste Disposal in USAREUR

The U.S. Army, Europe (USAREUR), is responsible for the management and funding of all Army environmental programs: restoration, conservation, compliance, and prevention—including asbestos, radon, and hazardous waste. As its total budget is reduced and other programs compete with environmental programs for limited funds, USAREUR must increase its control over its resources in order to allocate them effectively. Hazardous waste disposal operations are no exception.

Controlling and monitoring hazardous waste disposal costs has become an important issue for USAREUR. Aside from the continuing potential for personal liabilities associated with improper disposal, in FY94, USAREUR spent over $24 million, one-third of its entire environmental budget for hazardous waste disposal. The reduction of the scope of Army operations and the return of military bases to host-nation control in Europe decreased the funding needed for many environmental programs; yet, hazardous waste disposal costs have increased. That increase occurred as a result of increasingly stringent environmental laws and the recent need to conduct cleanup operations at military bases prior to returning them to host-nation control.

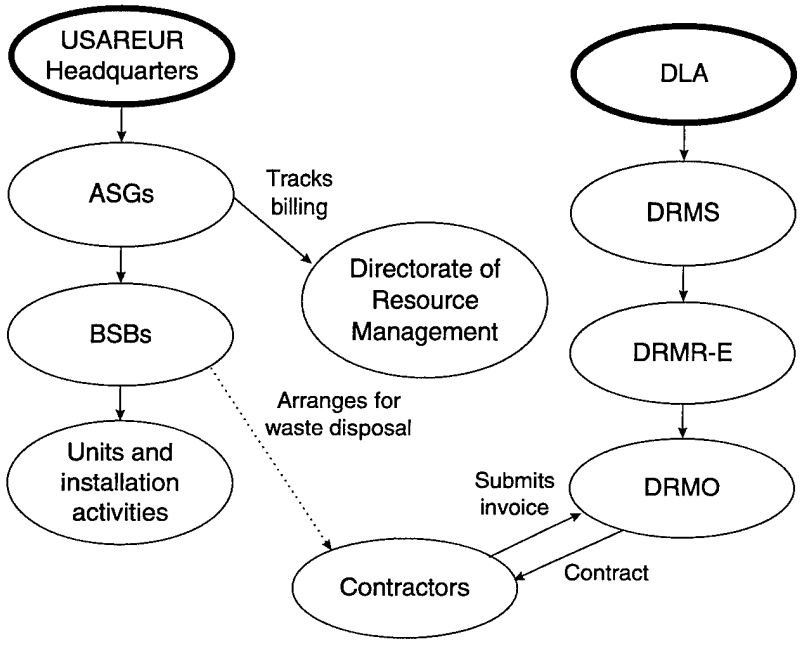
THE BUSINESS OF HAZARDOUS WASTE DISPOSAL

Hazardous waste operations in USAREUR involve the Army, the Defense Logistics Agency (DLA), and host-nation civilian contractors. In general, the Army is responsible for managing and funding the disposal process and for waste handling while the waste resides on the installation. DLA arranges, and pays for, the disposal of the wastes by contractors, subject to later reimbursement from the Army.

Army Area Support Groups (ASGs) provide DLA's Defense Reutilization and Marketing Region–Europe (DRMR-E) office with estimates of the volumes of waste disposal services required. DRMR-E arranges for regional support contracts. Army units generate waste through routine operations and store it at temporary accumulation points. Once the terms of the contract are established and the contracts are awarded, Army Base Support Battalions (BSBs) contact the contractor directly to arrange specific pickups. Contractors dispose of the waste, sending the manifests to the BSB and the invoices to the local Defense Reutilization and Marketing Office (DRMO), which acts as the contract monitor. The DRMO pays the contractor and passes invoice information to the DRMR-E,

which then gets accumulated reimbursement from USAREUR Headquarters, which in turn allocates the costs against the ASG that received the service. Figure 1-1 shows the various key relationships.

Figure 1-1. Hierarchy Relationship—Key Players in Hazardous Waste Disposal Operations



Note: DRMS = Defense Reutilization and Marketing Service.

Army Responsibilities

USAREUR Headquarter's responsibilities are to do the following:

- Ensure compliance with USAREUR Regulation 200-1 and status of forces agreements (SOFAs) with host nations.
- Provide guidance on environmental policy issues to the ASGs.
- Review funding requests and allocate resources.

ASGs' responsibilities are to do the following:

- Provide logistics support to a designated area, within which are several bases supported by subordinate BSBs; environmental management is one of the logistics support requirements.
- Issue guidance to the BSBs on environmental policy.

- Ensure hazardous waste disposal transactions comply with regulations.
- Ensure funding needs are met in budget requests for its subordinate BSBs.
- Process Defense Department Form 1348-1 (hereafter DD Form 1348-1) submitted by BSBs to obligate funds.
- Submit completed DD Form 1348-1 presented by BSBs to record completed pickups to the Directorate of Resource Management (DRM) for entry into the Standard Finance System (STANFINS). That system records funding authorizations, accumulates and reports on obligation and disbursements against fund authorizations for control purposes, and serves as the Army's primary record of account for installation-level appropriation accounting.

The overall role of the BSB is to provide logistics support to designated bases. One of their many responsibilities is to manage installation environmental programs, which includes directing waste pickups and monitoring hazardous waste disposal. The BSB's responsibilities are to do the following:

- Request funding through their ASG.[1]
- Initiate DD Form 1348-1 to authorize disposal of a particular waste stream.
- Establish a routine pickup process and, if needed, contact supporting contractors to pick up wastes if the accumulation level warrants it.
- Track each hazardous waste disposal transaction until final certification is received.
- Report cost figures to the ASG.

In terms of the funding process, the 200th Theater Army Material Management Command (TAMMC) is similar to a BSB. Located throughout Europe, TAMMC is supported directly by the 26th ASG in Heidelberg, Germany, for hazardous waste disposal cost. Among other responsibilities, the 200th TAMMC is responsible for receiving excess material that is no longer needed by units and activities, and it matches that excess material to other activities that need the material. Recently, that mission has grown enormously as units that stand down turn in all of their material, whether serviceable or not. For many items, if no use is found they must eventually be disposed of as hazardous waste. While the size of most of the

[1] At the time of this report, the relationship between the BSB and ASG is undergoing changes in USAREUR. These changes, however, do not eliminate the need for tracking hazardous waste disposal costs or making budgeting requests.

transactions are small (less than $10.00), there can be as many as a thousand per month. This generates a great deal of data for the 26th ASG to manage.

Army units and installation activities under the guidance of the BSB manage stored wastes in temporary accumulation points. As units and activities carry out their missions, one of the byproducts is hazardous waste that must be handled and stored as specified in regulations and by USAREUR environmental staff guidance.

Defense Logistics Agency Responsibilities

The Defense Reutilization and Marketing Service (DRMS), a major subordinate command of DLA, receives serviceable or salvageable items no longer needed by DoD activities (including the Army). DRMS attempts to place these items back into service through transfer or resale. This is especially the case for items such as paint, where if the item cannot be transferred quickly, it deteriorates and becomes waste. Because of that experience, DRMS has also become responsible for hazardous waste disposal contracts.

DRMS operations in Europe are managed by DRMR-E. It executes its functions through a network of local offices (i.e., DRMOs). However, with regard to hazardous waste disposal, DRMR-E has retained the following specific functions:

- Establish regional disposal support contracts to accomplish the disposals projected in the DD Form 1348-1 submitted by the ASGs. DRMR-E establishes a contract's parameters, sends out requests for proposals (RFPs), reviews and accepts submitted RFPs, and awards contracts.

- Transfer funds from the Army using a DoD centralized funding system driven by data contained in the Base Operations Supply System (BOSS). In BOSS, each DD Form 1348-1 is considered an obligation document and must be entered into the financial system to be matched with an interfund bill that automatically disburses the funds to DRMS.

- Provide billing records to the ASGs, listing each DD Form 1348-1 and the associated cost.

The local DRMOs are delegated to do the following:

- Collect the DD Form 1348-1 prepared by the BSB to project future pickup requirements and forward them to DRMR-E to serve as the input for establishing new disposal contracts.

- Act as the contract officer's representative for hazardous waste disposal contracts once awarded.

- Issue a completed DD Form 1348-1 when a pickup is accomplished as a record of the transaction. (Actually, the unit or BSB prepares it and the DRMO signs it.)

- Input into BOSS the data about actual quantities of waste picked up against each delivery order.

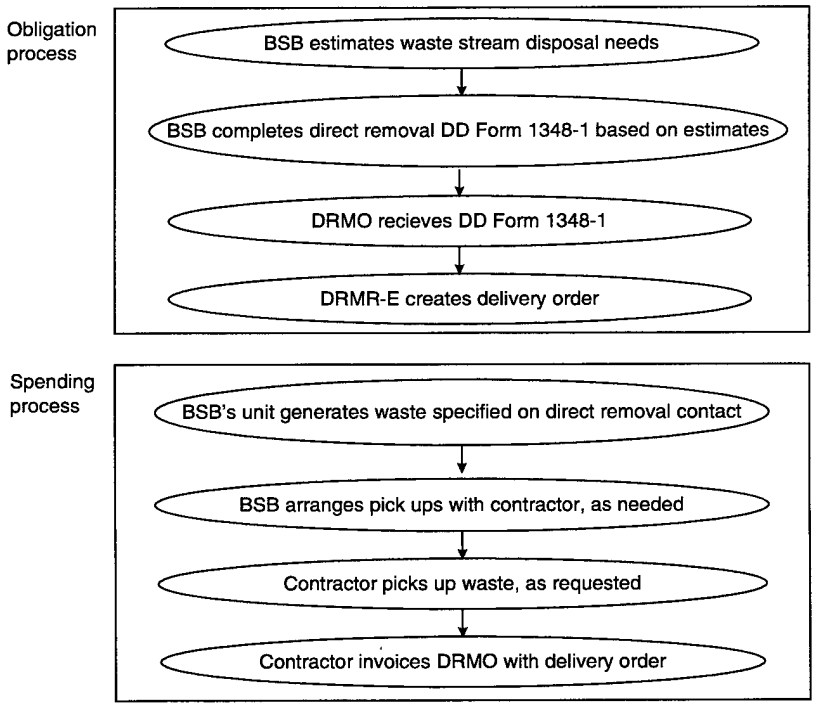
Contractor Responsibilities

Successful bidders are awarded indefinite-quantity contracts by DRMR-E. As arranged with the supported BSB, the disposal contractor picks up waste and submits invoices against the DD Form 1348-1 until the end of the performance period of the delivery order or until the quantity authorized by the DD Form 1348-1 has been picked up. After delivering the waste to an authorized disposal site, the contractor must provide the "gold copy" (i.e., the last page of the manifest) of the disposal certificate to the supported BSB. The "gold copy" is a receipt for the transaction as well as evidence the waste was disposed properly.

THE OBLIGATION CREATION PROCESS

For hazardous waste disposal there are two types of obligations, direct removal and turn-in. The process for creating the direct removal obligation is shown in Figure 1-2, while the process for turn-in obligations is shown in Figure 1-3. Both obligation types involve the completion of the DD Form 1348-1.

Figure 1-2. Direct Removal Process

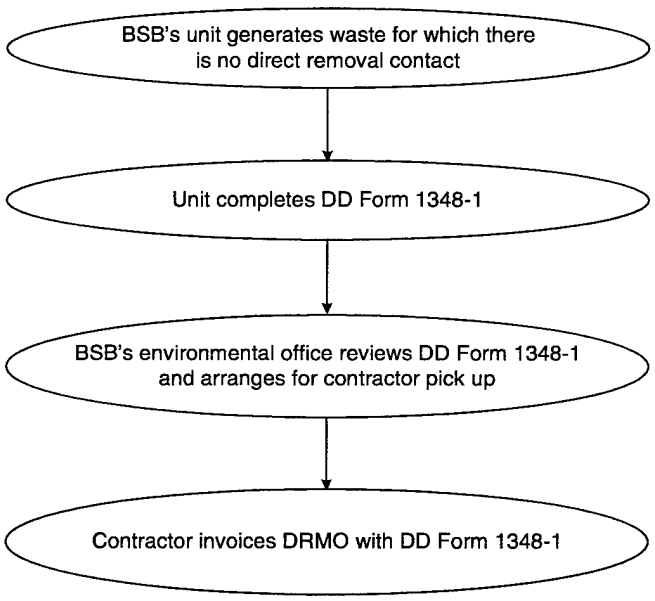


For the direct removal process, to obtain the services of a direct removal contractor, the BSB environmental office first must estimate the hazardous waste disposal quantities for each waste stream for the fiscal year. In next step shown in Figure 1-2, the BSB provides this information to the supporting DRMO by completing a DD Form 1348-1, which DRMR-E inputs into BOSS to create a delivery order. The delivery order in effect gives the contractor authorization to pick up hazardous waste from the BSB. The direct removal spending process shown in the bottom half of Figure 1-2 is one of the key differences between a direct removal and a turn-in.

In a direct removal, the BSB generates hazardous waste during the course of normal BSB operations. As waste is generated, the BSB environmental office arranges pick ups with the appropriate contractor for the accumulated hazardous waste streams. The contractor picks up the waste and invoices the DRMO for the removal. This is a another key difference between direct removals and turn-ins; direct removals have multiple pickups while turn-ins have only one.

A turn-in action, depicted in Figure 1-3, occurs when a unit generates a waste for which the supporting BSB has not established a removal contract. In the second step of Figure 1-3, the unit's supply personnel fill out a DD Form 1348-1 in the manner prescribed by the BSB environmental office, requesting disposal of the item. The cost of this disposal depends on the total weight of the waste and the contract's unit price. The BSB's environmental office reviews the DD Form 1348-1 for accuracy and completeness, signs it, and arranges for a contractor to transport the waste to a recycling or disposal facility. The contractor then picks up the waste and uses the DD Form 1348-1 to invoice DRMO, the last step shown in Figure 1-3. Typically, turn-ins are one-time, low-dollar volume actions.

Figure 1-3. Turn-in Process



In either event, the obligation is created by the arrival of the DD Form 1348-1. When an obligation is processed, the ASG is billed by DRMO and pays for the entire obligation through a military interdepartmental purchase request. As delivery orders are executed, whether by recurring direct removals or one-time turn-ins, adjustments are made to reflect differences in the estimated costs and actual costs. These adjustments are also accomplished using the DD Form 1348-1.

As the fiscal year draws to a close, it becomes important for USAREUR to be able to determine what the total coverage or shortfall is going to be. If there is money available, it then should be deobligated from the delivery orders so that it can be reprogrammed to satisfy other needs.

Chapter 2
Responsibilities and Requirements Drive the Need for Automation

The mission of USAREUR environmental managers is to ensure compliance with USAREUR Regulation 200-1 and SOFA with the host country while enabling the tenant units to perform their missions.

As part of this compliance mission, the ASGs and BSBs are obligated to monitor and track hazardous waste disposal and costs. This must be done not simply because it is required by regulation, but because failure to do so has significant practical consequences. The U.S. Army can be held responsible by the host-nation country for illegally or improperly dumped hazardous waste; the costs of cleanup far exceed the costs of avoiding the need for it. Other program management responsibilities for USAREUR and its subordinate commands include effective use of funds, responsive customer service, and waste minimization.

THE NEED FOR AUTOMATION

Several management functions depend on the availability of data to ensure an effective hazardous waste disposal program. In each case, the sheer volume of the transactions being handled makes handling enormous amounts of paper files impractical.

In FY94, the failure of the existing manual system brought matters to a head. USAREUR was in the midst of trying to provide funding for unfinanced contingencies in Somalia and Bosnia, and it sought to reprogram unused funds. STANFINS indicated that millions of dollars were unobligated in the hazardous waste disposal account; the 26th ASG (which by far had the largest amount of this funding) was convinced that it had obligated almost all of the money and was, if anything, underfunded for the duration of the year.

The ASG environmental office had no manageable means for determining how much hazardous waste money was actually obligated, much less what other pick-ups remained to be invoiced by hazardous waste contractors. Part of the problem resulted from the considerable time lags between actual waste pickups, the contractor presenting an invoice to the DRMO, and the automated funds transfer between the ASG and DRMO. A mechanism was needed to track obligations that were made and to monitor how much hazardous waste had been picked up against those obligations. Only a computer-based system could enable a routine audit of

this magnitude to be performed in a reasonable time frame with a high degree of accuracy.

In response to this short-term problem, USAREUR requested the Logistics Management Institute (LMI) to review the hazardous waste disposal system, determine where the process appeared to be broken, and recommend solutions. We concluded that the principal problem was the loss of all Army links to the STANFINS data system because of the intolerable burden of the paperwork associated with the manual DD Form 1348-1 process. In the short term, we recommended that ASGs prepare one-time obligation documents to bring the Army data in line with DRMS data. We also began the development of a prototype program that would enable preparation and transfer of the DD Form 1348-1 data to be performed electronically, thereby eliminating many clerical steps. Since that time, the prototype has been refined considerably. It is described in more detail in Chapter 3.

LMI had, in the earlier phase of the Obligation Disposal Monitor's (ODMs) development, recommended against mandating the use of the prototype system because not all ASGs had impossible disposal workloads and because time spent resolving setup problems and philosophical issues with those who did not want such a program could have been better spent improving the product. It was believed (correctly, as events transpired) that if the product was useful, then potential users would adopt it voluntarily. This has been the case: The many ASGs in USAREUR now use the improved prototype program; in some cases, where the ASG was not interested in adopting the program, their BSBs have. However, failure to adopt a common program required USAREUR to continue to compile reports manually and use data calls to respond to questions.

PROGRAM MANAGEMENT RESPONSIBILITIES

To accomplish required tasks, adequate record keeping of all hazardous waste-handling activities, from the initial waste-generation points to the receipt of disposal certificates from the ultimate disposal facility, are essential.

Accountability, Monitoring, and Reconciliation

The three areas of accountability, monitoring, and reconciliation are interrelated. For managers to be accountable for their budgets and programs, they must be able to monitor their spending in order to develop budgets and ensure wise use of their resources. Also, they must be able to reconcile their transactions to ensure that bills are paid and that sufficient funds are in place to pay them.

Without an automated means to track hazardous waste disposal cost transactions, the BSBs and ASGs must rely on DRMR-E data or be willing to manually page through DD Form 1348-1 document files to reconcile thousands of entries on hundreds of delivery orders.

The sheer magnitude of transactions guarantees that errors will occur when DRMR-E issues billings against the ASGs for hazardous waste disposal. Simple clerical mistakes (e.g., typographical errors, transposition of data between records, and duplicate entries) are common. Although many of the differences between DRMO records and actual costs are minimal (sometimes as little as $1.00), some are in the thousands of dollars. ASGs must keep their own records so they can verify DRMR-E's records; although DRMR-E does its best to minimize errors and to correct errors when discovered, it cannot correct errors that are not identified.

Budgeting

USAREUR must ensure that the ASGs and their subordinate BSBs are adequately funded and at the same time ensure that funds are used wisely and in accordance with regulations. A result of (in fact, one of the principal reasons for) major troop reductions in Europe was the reduction of the USAREUR budget; this included the environmental budget. However, as operations are removed from Europe, units closing down their barracks and bases discover accumulations of miscellaneous wastes, or more frequently, turn in items that would have been used over the long term but are no longer needed. Consequently, the need for disposal has increased rather than decreased because of the drawdown. Although this is a short-term adjustment, it still must be paid for.

This situation places strong pressures on ASGs and BSBs to defend their budget requests to USAREUR. To provide credible support to projection of waste generations at varying levels of activity, reliable data are required. The manual data that existed prior to the use of the ODM program were disparate, incomplete, unreliable, nonstandardized, and very difficult to obtain or use. Access to the manual data required the labor-intensive chore of paging through delivery orders and tallying numbers; and this process was subject to clerical errors. Frequently, important data were left out or improperly tallied.

Reporting

ASG environmental offices are required to provide quarterly management reports to activities and units that generate waste and to their higher commands about the generation and disposal of hazardous materials and waste and the associated costs.[1]

The DRMS Rapid Access to Information in DLA system can provide some of this information at the ASG level; however, the information is incomplete and not immediately available to ASG personnel. Moreover, the data belongs to an entirely different (non-Army) organization with responsibilities that are quite different from those of the ASG or BSB environmental staff. However, the available

[1] USAREUR Regulation 200-1 (6-8-a-6).

alternative was manually based reporting. Such reports on hazardous waste quantities and disposal costs were untimely and highly inaccurate. It required a highly labor-intensive effort to gather, tally, and report the data.

Waste Minimization

Waste minimization, aside from being Army policy, is important to reducing disposal costs. ASG commanders, through their environmental offices, are required to do the following:

- Ensure that hazardous waste treatment and disposal options stress waste minimization techniques (e.g., recycling, energy recovery, and detoxification).
- Reduce the use of hazardous materials to the lowest practical levels according to the Army mission and hazardous waste and hazardous material minimization requirements.
- Use nonhazardous or nontoxic material substitutes.
- Conserve resources.
- Ensure that tenant organizations comply with USAREUR environmental regulations.

Selection of the wastes to minimize implies the ability to determine what wastes are being disposed of and in what quantities. If they are disposed of, it is clear that they are not being recycled or recovered in some fashion.

To accomplish these requirements, program and budget resources to effectively manage, control, and minimize the use of hazardous materials must be in place. In managing such a program, the ASG Commander (with the assistance of the environmental staff) must periodically identify the uses and disposal of hazardous materials or hazardous waste by category and volume; select key minimization opportunities; and conduct a trend analysis of the data to determine if there is a proportionate increase in the use of nonhazardous materials.

In addition to monitoring operational uses, the material turned in to DRMO (as a result of base closure or other USAREUR-wide programs) is also a major source of hazardous wastes. Although it is impossible to minimize these wastes once they become waste, the ODM program provides a valuable source of information on opportunities for waste minimization.

Tenant Management

Most installations have several tenant organizations, including troop units, other U.S. Army organizations, commercial enterprises (e.g., Burger King), DoD services (e.g., Army and Air Force Exchange Services), and other federal agency offices. All these may be generators of hazardous waste.

Tenant organizations receive support from the ASG for hazardous waste and materials management and disposal. They also are required to include funding for hazardous waste and materials disposal in their budgeting process and to reimburse the supporting ASG Department of Engineering and Housing for the disposal activities.

The ASGs need a means for tracking disposal costs if it they are to bill tenant organizations for service. If ASGs were to bill tenant organizations for their actual costs (a good method of encouraging waste reductions), it would be necessary to provide a bill with detailed transactions so the tenants could have the opportunity to reconcile their bill and pay it. To date, the ASGs have not had this capability. Tenant organizations have not paid for hazardous waste disposal costs; the ASGs simply have paid the bills for everybody.

Proper Disposal

The BSB environmental staff must ensure that hazardous waste is ultimately received by the facility designated on the disposal manifest. If no tracking is done to ensure that proper treatment or disposal took place, the potential that the waste may be improperly or even illegally disposed of increases, especially in countries where environmental regulation is lax. Even where illegal hazardous waste disposal is unlikely, failure to track invoices against disposal certificates can (and does) result in multiple billings for the same wastes, or for wastes that are not even Army generated.

Ad Hoc Queries

Environmental issues concern managers at all levels in DoD, the Executive Office, and Congress. From time to time, issues are brought to fore, which standard reports do not specifically address. Again, use of a manual system to produce the answers to reasonable questions is extremely onerous and tends to lead to the compilation of inaccurate information because the field staff may not have the resource to gather and tally the information.

Chapter 3
Meeting the Requirements: Prototype System Reports

The ODM was developed to meet USAREUR needs in monitoring its hazardous waste disposal cost and managing its environmental program. As described in Chapter 2, ODM was developed as a prototype to meet the needs of ASGs in monitoring obligations for hazardous waste disposals; however, the data have additional valuable uses.

ODM was not mandated for ASG use from the outset. This enabled an incremental development process with enhancements being added to meet particular requirements as they emerged. Over time, most of the ASGs in USAREUR adopted ODM.

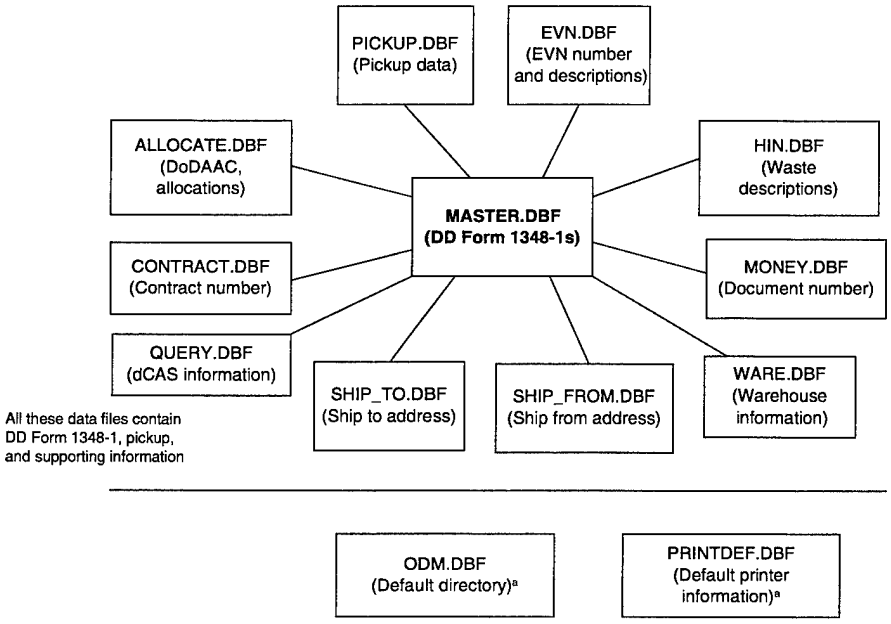
General Structure of ODM Modules

The fundamental requirement for ODM was to collect the data submitted on the DD Form 1348-1 for obligations and to provide it to the ASG DRM so that it could be loaded electronically into STANFINS. The incentive to use ODM at the BSB level comes from the fact that it provides for printing the form directly from the program, thus requiring data to be entered only once. In addition, the program was designed to track open delivery orders and disposals to enable follow up on pick up actions when no disposal certificate had been received and to enable the tracking of pickup actions that have been executed but not yet invoiced. Figure 3-1 shows the general structure of the ODM modules.

Flow of ODM Activities

ODM is a menu-driven program that provides a means to input DD Form 1348-1 information, pick up information against direct removals, and generate reports. The program contains features enabling the users to import data from other ODM data sets (i.e., BSBs), backup data, configure the printer, and other features to assist the user. ODM also has a maintenance section where repeatedly used data can be entered once, stored, and retrieved during DD Form 1348-1 input by using pop-up menus.

Figure 3-1. ODM Data Architecture



Notes: DoDAAC = DoD activity address code; dCAS = Data-based Commitment Accounting System; and HIN = hazardous item number.

[a]ODM.DBF and PRINTDEF.DBF contain ODM default settings.

ODM DATA CONTENTS

The data contained in ODM is almost exclusively collected from the DD Form 1348-1. That form provides enough detail to serve as a rich data set suitable for supporting management requirements. Figure 3-1 shows the general contents of the data tables in ODM.

REPORTING CAPABILITIES

In addition to the operational features described above that help environmental staff members carry out their responsibilities in a way that benefits all, ODM contains preformatted reports developed by environmental managers at the BSB, ASG, and USAREUR Headquarters levels. Those reports each contribute to meeting one or more the manager's needs addressed in Chapter 2. Reports are identified in Table 3-1. Appendix A contains sample pages from ODM reports. Each report is discussed in the following subsections.

Table 3-1. ODM Data Reports and USAREUR Program Management Uses

Report name	Account-ability, recon-ciliation, and monitoring	Budgeting	Reporting	Waste minimi-zation	Tenant manage-ment	Proper disposal	Data quality	Ad hoc features
Obligation Report by Delivery Order	Yes							Yes
Obligation Report by Ship From	Yes	Yes	Yes		Yes			Yes
Obligation Report by Contract	Yes							Yes
Allocation Status Report	Yes	Yes	Yes					
Contract Status Report	Yes	Yes	Yes					
dCAS Obligations not in ODM	Yes						Yes	
ODM Obligations not in dCAS	Yes						Yes	
Variance Report (ODM/dCAS)	Yes						Yes	
Pickup History	Yes	Yes						Yes
Document Number Listing	Yes							Yes
TSDF Report	Yes							
MIPR List	Yes							
No Gold Report	Yes		Yes			Yes		
Obligation Report by HIN/CLIN	Yes			Yes	Yes			Yes
Duplicate Report	Yes						Yes	
Data Integrity Report							Yes	
HIN/CLIN List	Yes							

Notes: CLIN = contract line item number; MIPR = military interdepartmental purchase request; and TSDF = treatment, storage, and disposal facility.

Obligation Reports

The first set of reports are those for which ODM was originally constructed: to account for the amount of funds obligated. This information is needed in several different forms.

Obligation Report by Delivery Order

The *Obligation Report by Delivery Order* is important for monitoring hazardous waste disposal costs. DRMO and the contractors track disposal activities by delivery order. To reconcile DRMO and ASG records, activities must be segregated by the particular delivery order. The report is sorted by DoD activity address code (DoDAAC), contract number, delivery order, and grouped by DoDAAC, contract number, and delivery order. This report also can be exported to a database to conduct ad hoc queries.

Obligation Report by Ship From

The *Obligation Report by Ship From* provides similar information to the *Obligation Report by Delivery Order*, but aggregates totals by the DoDAAC where hazardous waste was generated and removed. ODM can track to the unit level, or

lower, where the waste was generated (including tenant organizations). This report enables the manager to monitor each physical area where hazardous waste is taken from and hold the generators of the hazardous waste accountable for it. It also provides a means to bill tenant organizations because the *ship from* address can be made the billing address. Customer organizations, if and when they are billed, could request copies of this report to reconcile with their own records. The *Obligation Report by Ship From* can also be exported to a database file format for ad hoc queries and custom reports.

Obligation Report by Contract

Another important obligation report is the *Obligation Report by Contract*, used to monitor the contract status and reconcile with delivery orders from DRMO. This report is very similar to the *Obligation Report by Delivery Order* but, due to operating differences between ASG's, some prefer this format.

Status Reports

Status reports provide one-page summaries of a BSB, a group of BSBs, or ASG's obligations and spending.

Allocation Status Report

The *Allocation Status Report* is a one-page report showing each BSBs status in terms of its obligations (e.g., turn-ins, removals, and MIPRs) as well as the sums spent. It details, by BSB, the total amount obligated through turn-ins and direct removals together, direct removals alone, funds actually spent on direct removal pickups, obligated hazardous waste turn-ins, hazardous materials waiting either to be sold or disposed of (a measure of the potential liability for future disposal costs), and the funds obligated via MIPR.

This information can measure the status of the hazardous waste disposal budget at any time during the fiscal year. If the BSB is spending funds on hazardous waste removal at a faster rate than budgeted, additional funds can be requested and a higher amount for the following year's budget request can be justified.

Contract Status Report

The *Contract Status Report* is similar to the *Allocation Status Report* except that it aggregates by contract number rather than BSB. At the USAREUR Headquarters level and sometimes the ASG level, it is an expedient tool for identifying contracts that are approaching their ceilings and should be reinitiated.

Financial Reconciliation Reports

These reports use links between ODM and other financial tracking systems in order to identify, explain, and correct discrepancies.

dCAS Obligations not in ODM

This report automates the reconciliation process between ODM and the dCAS, which is managed by DRM. dCAS contains the official financial information for hazardous waste disposal cost and has a means to export its data in a format readable by ODM. There are several reasons why obligations could show up in dCAS and not ODM; these reasons include the following:

- Clerk failed to input data into ODM
- Clerk input wrong DD Form 1348-1 number into ODM
- Clerk input wrong DD Form 1348-1 number into dCAS.

Without such a report, it is very difficult to tabulate and cross-check thousands of documents to determine which ones are there or not. Adding to the confusion in a manually based system, papers can be borrowed, misfiled, ripped, lost, or simply in transit.

ODM Obligations not in dCAS

This report also automates the reconciliation process between ODM and dCAS. Like in the previous report, there are several reasons why obligations could show up in ODM and not dCAS; these reasons include the following:

- Clerk failed to input data into dCAS
- Clerk input wrong DD Form 1348-1 number into ODM
- Clerk input wrong DD Form 1348-1 number into dCAS
- The data are waiting to be input into dCAS (very common).

The *dCAS Obligations not in ODM* and *ODM Obligations not in dCAS* reports provide the information needed to quickly start investigating unusual transactions. Without those reports, it is very difficult to tabulate and cross-check the thousands of DD Form 1348-1 documents to determine which ones are there or not. Generally, transactions are found in ODM and not in dCAS because of the considerable time delays in getting a transaction entered into dCAS.

VARIANCE REPORT (ODM/dCAS)

This report compares not just the documents but the dollar values of each transaction in ODM and dCAS. In developing this routine, we found so many discrepancies we had to implement a tolerance level of $1.00 so the ASG or BSB staff would not have to manually eliminate hundreds of entries that were insignificantly different. This enabled them to concentrate on the larger differences that were significant.

Program Activity Reports

The following reports provide hazardous waste disposal management information of a more general nature than the financially oriented reports noted so far.

PICKUP HISTORY

The *Pickup History* report provides detailed information about each hazardous waste pickup. It lists the contractor who picked up the hazardous waste, when it was picked up, the amount of dollars and waste quantity, and a description of the waste. The report is sorted by DoDAAC, hazardous item number (HIN) or contract line item number (CLIN), waste description, pickup date, and installation. Data are summed for each HIN/CLIN at each DoDAAC, so the environmental manager can quickly analyze how money is being spent on each waste stream. This report also provides a running balance (obligation amount less pickups) to provide the status of funds still available. This greatly facilitates the budgeting process and is the report most often used at the BSB level. With this report, the manager can monitor waste stream activities and reconcile their records with those of DRMO and the contractor. The data contained in this report can be exported to a database or ASCII file so users can process their own ad hoc queries on the data and generate custom reports.

DOCUMENT NUMBER LISTING

This report provides a complete listing of all DD Form 1348-1 documents and is sorted by document number. The report includes the database record number, document number, waste description, whether it is a turn-in or direct removal, the national stock number, the HIN/CLIN number, the quantity or weight, and the dollar value of the document. With this report, the BSB can quickly locate records that need to be edited, reconciled, or investigated.

TREATMENT, STORAGE, AND DISPOSAL FACILITY REPORT

This report provides a list sorted by the treatment, storage, and disposal facility (TSDF). The *TSDF Report* addresses whether the gold copy of the manifest has been returned, identification number of the *TSDF Report*, contract number, truck license, quantity picked up, unit of measure, whether the quantity was estimated

or actual, and a description of the waste. A total quantity for each TSDF is also detailed in the report.

MIPR Report

Some ASGs transfer funds to their supporting DRMO using a MIPR rather than using the interfund system. ODM contains a field to track MIPR transactions as well as providing a separate report to reconcile these transactions. The information is sorted on type of DD Form 1348-1 (turn-in or direct removal) and HIN/CLIN. The *MIPR Report* provides the record's database number, DD Form 1348-1 document number, whether it is a turn-in or direct removal, unit price, quantity (if direct removal), removal obligation amount, total weight (if turn-in), turn-in cost, HIN/CLIN number, and description.

No Gold Report

ODM enables the BSB to record each pickup of hazardous waste. Each TSDF is required by law to certify the delivery and proper disposal of waste consigned to it. The BSB is notified that proper treatment or disposal took place when the treatment or disposal facility returns the gold copy to the BSB; generally, the disposal facility has 30 to 45 days to return the gold copy to the BSB. After this time, the onus is on the BSB to contact the disposal facility to make sure proper disposal of their hazardous waste occurred. This follow-up will quickly detect illegal dumping by the transporter. The *No Gold Report* facilitates this process.

The *No Gold Report* lists the manifest number, pickup date, and waste description for each pickup where the BSB has not received the gold copy of the manifest. The report is sorted by date to indicate the oldest extant manifests first.

Obligation Report by HIN/CLIN

The Obligation Report by HIN/CLIN provides insight into how much of each waste is being disposed of and its associated cost. This provides managers at the BSB, ASG, and USAREUR Headquarters the ability to monitor all waste streams. The ability to identify the hazardous obligations by waste stream enables USAREUR to quickly identify issues concerning waste that could be targeted for source reduction, substitution, or recycling.

Quality Control Reports

The following reports are intended to identify weaknesses in system data.

Duplicate Report

The *Duplicate Report* is a quality assurance report to check if two or more records with the same DD Form 1348-1 document number exist in the database. The re-

port specifies the document number, whether it is a turn-in or direct removal, which record numbers are duplicated, the quantity, total weight, unit price, and close-out date. Duplicate DD Form 1348-1 document numbers may be permitted in direct removals; the first DD Form 1348-1 obligates funds, while the second either should reduce or increase the amount of the total obligation to equal what the hazardous waste disposal contractor has actually picked up. Typically, adjustments to obligated amounts take place near the end of the fiscal year. With this information, managers can investigate whether the records in question are valid.

DATA INTEGRITY REPORT

The *Data Integrity Report* evaluates each record and lists any business rule violations that occur. This enables the manager to fix the records in question. ODM contains two types of data-entry checks: the first provides the user a list of valid entries to choose from and the second tests each record before saving it to the database. Unfortunately, for various reasons, these built-in business rules and data validation checks are not always foolproof—power surges, users directly editing records, additional rules added with a new ODM release, and so on bypass ODM's validity checks. This necessitates the need for the *Data Integrity Report* and its validation rules, which include the following:

- Each record must be marked for either hazardous materials or hazardous waste.
- DD Form 1348-1 document numbers cannot be blank.
- DD Form 1348-1 records must be marked as either a direct turn-in or removal.
- Direct removals cannot be marked as hazardous materials.
- Unit of measure cannot be blank.
- Delivery orders cannot be blank for hazardous materials.
- Total weight must be greater than zero for hazardous waste turn-ins.
- The MIPR field must be either "Y" for yes or "N" for no.
- If the fiscal year is less than 1995, a warning is given.

Miscellaneous Report

HIN/CLIN LIST

This report lists each HIN or CLIN and its description. The data within this report are used to support pop-up menus within ODM.

Chapter 4
Recommendations

In light of the data support requirements identified in Chapter 2, and the manner in which the ODM addresses those needs, we make the following recommendations:

1. *USAREUR should require all ASGs, assigned BSBs, and the 200th TAMMC to use the ODM program.*

   The benefits of using ODM include assisting in compliance with USAREUR Regulation 200-1: validating data at the point of entry, providing a common data structure for all activities involved in hazardous waste disposal, and supplying a fast and simple mechanism for meeting USAREUR reporting and data needs.

   Full implementation of the ODM program throughout USAREUR will increase managerial efficiency by significantly reducing the time needed for managing (tracking, reconciling, and tallying) hazardous waste disposal transactions; substantially increasing control over hazardous waste disposal operations; and enabling environmental managers to generate their budget request and justify those requests with up-to-date figures.

2. *USAREUR Headquarters should require each BSB or ASG to send their* Allocation Status Report *and* Contract Status Report *to Headquarters on a monthly basis.*

   Sending reports will provide USAREUR Headquarters with an up-to-date budget status for its BSBs, ASGs, and contracts because such reporting will

   - significantly reduce the possibility of "surprise" requests for additional funding,
   - show funds that could be deobligated and reobligated for other uses,
   - allow enough time to create new contracts for those that are about to be exceeded or expire, and
   - demonstrate that the data are important to Headquarters and that it should be properly maintained by the BSBs and ASGs.

3. *USAREUR should require each BSB or ASG to submit its ODM data set quarterly.*

   Quarterly reporting would enable USAREUR to conduct data analyses with reasonably current data. USAREUR can use the compiled ODM data several ways, such as monitoring hazardous waste activities, ensuring compliance with waste minimization goals, responding to queries, and monitoring environmental performance indicators.

4. *USAREUR should use ODM's* Obligation Report by Ship From *to bill tenant organizations.*

   Using this report would provide some relief in funding for the USAREUR environmental program. More important, it would be an incentive to tenant organizations to reduce, reuse, recycle, or find substitutes for some portion of their hazardous waste streams.

Implementing these recommendations will give USAREUR greater control over its environmental program, increase funds available, reduce the possibility of hazardous waste being improperly disposed of, and accomplish these improvements with less managerial effort than is expended today.

Appendix A
Obligation Disposal Monitor Sample Reports

The reports contained herein are purely notional and for demonstrative purposes only.

Page No. 1 PICKUP HISTORY
08/29/96

WASTE	PICKUP DATE	INSTALLATION	BLDG. NUMBER	MANIFEST NUMBER	TRANS. ID	TSDF. ID	QUANTITY	EST/ ACT.	COMPLETE	ACTIVITY
DODAAC: W81CJX										
HIN: E2038B										
W81CJX53552623										
ANTI-FREEZE	04/24/96	COLEMAN BKS	1391	2260-1014252	G08364389	H19139480	200	Act	N	AMF(L)
ANTI-FREEZE	04/24/96	TAYLOR BKS	338	2260-1014252	G08364389	H19139480	460	Act	N	72 SIGN BN
ANTI-FREEZE	04/24/96	TAYLOR BKS	399	2260-1014252	G08364389	H19139480	200	Act	N	72 SIGN BN
ANTI-FREEZE	04/24/96	TAYLOR BKS	355	2260-1014252	G08364389	H19139480	50	Act	N	72 SIGN BN
ANTI-FREEZE	04/24/96	TURLEY BKS	519	2260-1014252	G08364389	H19139480	284	Act	N	181 TRNS B
Total Picked-up for HIN							1,194		$837	
Total on 1348							2,106		$1,476	
Balance							912		$639	
HIN: E2145B										
W81CJX53552625										
FLUORESCENT LIGHT TUBES	02/14/96	TAYLOR BKS	374	2260-1012784	G08364389	S88040273	160	Act	N	DEH
FLUORESCENT LIGHT TUBES	04/15/96	TAYLOR BKS	374	2260-1014183	G08364389	S88040273	267	Act	N	DEH
Total Picked-up for HIN							427		$789	
Total on 1348							904		$1,670	
Balance							477		$881	
HIN: E3122B										
W81CJX53552626										
SOLID/PART SOLID PAINT	01/29/96	COLEMAN BKS	1344	2260-1012440	G08364389	H19139480	237	Act	Y	28 TRNS BN
SOLID/PART SOLID PAINT	03/04/96	FUNARI BKS	817	2260-1013138	G08364389	H19139480	1,934	Act	Y	HQ CEGE
SOLID/PART SOLID PAINT	03/04/96	TURLEY BKS	519	2260-1013138	G08364389	H19139480	343	Act	Y	181 TRNS B
SOLID/PART SOLID PAINT	03/26/96	FUNARI BKS	817	2260-1013370	G08364389	H19139480	1,597	Act	Y	HQ CEGE
SOLID/PART SOLID PAINT	04/24/96	TURLEY BKS	519	2260-1014251	G08364389	H19139480	304	Act	N	181 TRNS B
Total Picked-up for HIN							4,415		$4,219	
Total on 1348							7,742		$7,397	
Balance							3,327		$3,179	
HIN: E3966B										
W81CJX53552630										
GREASE, AUTOMOTIVE	03/06/96	SPINELLI BKS	1504	2260-1013250	G08364389	H19139480	153	Act	Y	181 TRNS B
GREASE, AUTOMOTIVE	04/24/96	SPINELLI BKS	1504	2260-1014253	G08364389	H19139480	85	Act	N	181 TRNS B
Total Picked-up for HIN							238		$280	
Total on 1348							564		$665	
Balance							326		$384	
HIN: E4566B										
W81CJX53552631										
NON-HALOGENATED SOLVENTS	01/29/96	COLEMAN BKS	52	2260-1012439	G08364389	H19139480	566	Act	Y	UMEOAL
NON-HALOGENATED SOLVENTS	03/26/96	TAYLOR BKS	356	2260-1013369	G08364389	H19139480	287	Act	Y	DEH
Total Picked-up for HIN							853		$467	
Total on 1348							896		$491	

WASTE	PICKUP DATE	INSTALLATION	BLDG. NUMBER	MANIFEST NUMBER	TRANS. ID	TSDF. ID	QUANTITY	EST/ ACT.	COMPLETE	ACTIVITY
Balance							43		$24	
HIN: E4566D										
W81CJX53552632										
NON-HALOGENATED SOLVENTS	03/06/96	FUNARI BKS	804	2260-1013249	G08364389	H19139480	249	Act	Y	DCA, AUTO
Total Picked-up for HIN							249		$97	
Total on 1348							766		$298	
Balance							517		$201	
DODAAC Total Picked-Up							7,376		$6,688	
DODAAC Total Obligated							27,367		$25,157	
DODAAC Balance							5,602		$5,308	

TOTAL OBLIGATIONS - PER DELIVERY ORDER

DODAAC: RHEINLAND-PFALZ			
Contract : DAJA37-95-D-0003			
Delivery Order: 0072			
W81CJX61012650	238.11		
W81CJX61012651	571.44		
W81CJX61012652	921.77		
W81CJX61012653	547.62		
W81CJX61012654	2,897.97		
W81CJX61012655	191.84		
Delivery order total cost		5,368.74	
Delivery Order: JM54			
W81CJX53312609	169.60		
W81CJX53312615	131.22		
W81CJX53312616	179.64		
W81CJX53312609	-169.60		
W81CJX53312615	-131.22		
W81CJX53312616	-179.64		
Delivery order total cost		0.00	
Delivery Order: JM55			
W81CJX53312603	67.89		
W81CJX53312604	452.61		
W81CJX53312605	452.61		
W81CJX53312606	646.50		
W81CJX53312607	64.65		
W81CJX53312608	1,422.42		
Delivery order total cost		3,106.69	
Contract : SP4420-96-D-0001			
Delivery Order: 0002			
W81CJX53552623	1,611.61		
W81CJX53552625	1,847.20		
W81CJX53552626	10,032.75		
W81CJX53552630	2,238.96		
W81CJX53552631	1,424.28		
W81CJX53552632	388.60		
W81CJX53552623	-135.94		
W81CJX53552625	-177.33		
W81CJX53552626	-2,635.27		
W81CJX53552630	-1,574.34		
W81CJX53552631	-933.45		
W81CJX53552632	-90.93		
Delivery order total cost		11,996.14	
Delivery Order: 0021			
W81CJX61012660	571.60		
W81CJX61012661	1,496.80		
W81CJX61012662	1,601.38		
W81CJX61012663	1,972.80		
W81CJX61012664	4,592.25		
W81CJX61012665	655.11		
W81CJX61012666	8,164.00		
W81CJX61012667	387.78		
W81CJX61012668	1,132.74		
W81CJX61012669	585.10		
W81CJX61012670	415.00		
W81CJX61012671	421.80		
W81CJX61012672	6,939.00		
W81CJX61012673	864.00		
Delivery order total cost		29,799.36	
BSB total cost			50,270.93
DODAAC: 69[illegible]			
Contract : DAJA[illegible]			
Delivery Order:			
WKK70050197257	0.00		
WKK70052927796	4.42		
Delivery order total cost		4.42	
Contract : SP4420-9[illegible]			
Delivery Order:			
WKK70060377871	2.94		
Delivery order total cost		2.94	
Contract : SP4420-96-D-0001			
Delivery Order:			
WKK70061167985	3.91		
Delivery order total cost		3.91	
BSB total cost			11.27
TOTAL OBLIGATED FOR ASG:			50,282.20

Page No. 1
08/29/96 TOTAL OBLIGATIONS - BY SHIP FROM

Ship From/1348 Document Number	Obligation (U.S Dollars)
RHEINLAND-PFALZ	
W81CJX53312603	67.89
W81CJX53312604	452.61
W81CJX53312605	452.61
W81CJX53312606	646.50
W81CJX53312607	64.65
W81CJX53312608	1,422.42
W81CJX53312609	169.60
W81CJX53312609	-169.60
W81CJX53312615	131.22
W81CJX53312615	-131.22
W81CJX53312616	179.64
W81CJX53312616	-179.64
	3,106.69
BADEN-WUERTTEMBERG	
W81CJX53552623	1,611.61
W81CJX53552623	-135.94
W81CJX53552625	1,847.20
W81CJX53552625	-177.33
W81CJX53552626	10,032.75
W81CJX53552626	-2,635.27
W81CJX53552630	2,238.96
W81CJX53552630	-1,574.34
W81CJX53552631	1,424.28
W81CJX53552631	-933.45
W81CJX53552632	388.60
W81CJX53552632	-90.93
	11,996.14
RHEINLAND-PFALZ	
W81CJX61012650	238.11
W81CJX61012651	571.44
W81CJX61012652	921.77
W81CJX61012653	547.62
W81CJX61012654	2,897.97
W81CJX61012655	191.84
	5,368.74
BADEN-WUERTTEMBERG	
W81CJX61012660	571.60
W81CJX61012661	1,496.80
W81CJX61012662	1,601.38
W81CJX61012663	1,972.80
W81CJX61012664	4,592.25
W81CJX61012665	655.11
W81CJX61012666	8,164.00
W81CJX61012667	387.78
W81CJX61012668	1,132.74
W81CJX61012669	585.10
W81CJX61012670	415.00
W81CJX61012671	421.80
W81CJX61012672	6,939.00
W81CJX61012673	864.00

Ship From/1348 Document Number	Obligation (U.S Dollars)
	29,799.36
69TH TRANS CO	
WKK70050197257	0.00
	0.00
HQ ATCOM EUROPE W81L	
WKK70052927796	4.42
	4.42
HEALTH CLINIC MANNHEI	
WKK70060377871	2.94
	2.94
70TH TRANS BN (AVIM)	
WKK70061167985	3.91
	3.91
Total	50,282.20

TOTAL OBLIGATIONS - PER CONTRACT/DELIVERY ORDER

CONTRACT: DAJA37-94-D-0038

Delivery Order:
Ship From: 69TH TRANS CO

	WKK70050197257	0.00
Ship from total cost		0.00
Ship From: HQ ATCOM EUROPE W81L03		
	WKK70052927796	4.42
Ship from total cost		4.42
Delivery order total cost		4.42
Contract total cost		4.42

CONTRACT: DAJA37-95-D-0003

Delivery Order: 0072
Ship From: RHEINLAND-PFALZ

	W81CJX61012650	238.11
	W81CJX61012651	571.44
	W81CJX61012652	921.77
	W81CJX61012653	547.62
	W81CJX61012654	2,897.97
	W81CJX61012655	191.84
Ship from total cost		5,368.74
Delivery order total cost		5,368.74

Delivery Order: JM54
Ship From: RHEINLAND-PFALZ

	W81CJX53312609	169.60
	W81CJX53312615	131.22
	W81CJX53312616	179.64
	W81CJX53312609	-169.60
	W81CJX53312615	-131.22
	W81CJX53312616	-179.64
Ship from total cost		0.00
Delivery order total cost		0.00

Delivery Order: JM55
Ship From: RHEINLAND-PFALZ

	W81CJX53312603	67.89
	W81CJX53312604	452.61
	W81CJX53312605	452.61
	W81CJX53312606	646.50
	W81CJX53312607	64.65
	W81CJX53312608	1,422.42
Ship from total cost		3,106.69
Delivery order total cost		3,106.69
Contract total cost		8,475.43

CONTRACT: SP4420-95-R-0002

Delivery Order:
Ship From: HEALTH CLINIC MANNHEIM

	WKK70060377871	2.94
Ship from total cost		2.94
Delivery order total cost		2.94
Contract total cost		2.94

CONTRACT: SP4420-96-D-0001

Delivery Order:
Ship From: 70TH TRANS BN (AVIM)

	WKK70061167985	3.91
Ship from total cost		3.91
Delivery order total cost		3.91

Delivery Order: 0002
Ship From: BADEN-WUERTTEMBERG

	W81CJX53552623	1,611.61
	W81CJX53552625	1,847.20
	W81CJX53552626	10,032.75
	W81CJX53552630	2,238.96
	W81CJX53552631	1,424.28
	W81CJX53552632	388.60
	W81CJX53552623	-135.94
	W81CJX53552625	-177.33
	W81CJX53552626	-2,635.27

	W81CJX53552630	-1,574.34
	W81CJX53552631	-933.45
	W81CJX53552632	-90.93
Ship from total cost		11,996.14
Delivery order total cost		11,996.14
Delivery Order: 0021		
Ship From: BADEN-WUERTTEMBERG		
	W81CJX61012660	571.60
	W81CJX61012661	1,496.80
	W81CJX61012662	1,601.38
	W81CJX61012663	1,972.80
	W81CJX61012664	4,592.25
	W81CJX61012665	655.11
	W81CJX61012666	8,164.00
	W81CJX61012667	387.78
	W81CJX61012668	1,132.74
	W81CJX61012669	585.10
	W81CJX61012670	415.00
	W81CJX61012671	421.80
	W81CJX61012672	6,939.00
	W81CJX61012673	864.00
Ship from total cost		29,799.36
Delivery order total cost		29,799.36
Contract total cost		41,799.41
TOTAL OBLIGATED FOR ASG:		50,282.20

Page No. 1
08/29/96

SUMMARY OF OBLIGATIONS BY HIN/CLIN

HIN/ CLIN	Description	Removal Quantity	Removal Obligations	Turn-in Weight(KG)	Turn-in Obligations	Total Obligation	Turn-in HM/KG
E0505	MIXED DRY BATTERIES	250	$170	0		$170	0
E0505A	DRY CELL BATTERIES	-250	$-170	0		$-170	0
E0505B	DRY CELL BATTERIES	1,000	$864	0		$864	0
E0508B	LEAD ACID BATTERIES	3,500	$238	0		$238	0
E1330B	BATTERY ACID	1,000	$422	0		$422	0
E1330D	BATTERY ACID	2,000	$572	0		$572	0
E1343D	CHROMIC - / HYDROCHLORIC ACID	6,000	$6,939	0		$6,939	0
E1914A	DS2 DECONTAMINATING AGENT	0	$0	4	$3	$3	0
E2038B	ANTI-FREEZE	5,606	$3,544	0	$0	$3,544	0
E2038D	ANTI-FREEZE	2,200	$1,601	0		$1,601	0
E2145B	FLUORESCENT LIGHT TUBES	2,404	$4,564	0		$4,564	0
E2307A	SEALING CMPDS, ADHESIVES	0	$0	2	$4	$4	0
E3122B	SOLID/PART SOLID PAINT	12,742	$12,537	0	$0	$12,537	0
E3704D	PHOTOGRAPHIC WASTE (MIXTURES)	900	$655	0		$655	0
E3907B	OIL CONTAMINATED SOLIDS	13,000	$11,062	0		$11,062	0
E3919B	FILTERS	600	$388	0		$388	0
E3950A	HYDRAULIC FLUID A.T.	0	$0	60		$0	60
E3966B	GREASE, AUTOMOTIVE	1,464	$1,797	0		$1,797	0
E4506	AEROSOL CANS W/HAZ RESIDUALS	200	$131	0		$131	0
E4506A	AEROSOL CANS W HARMF RESIDUES	-200	$-131	0		$-131	0
E4566	NON-HALOGENATED SOLVENTS	300	$180	0		$180	0
E4566A	RUST INHIBITOR	-300	$-180	5		$-180	5
E4566B	NON-HALOGENATED SOLVENTS	2,196	$1,268	0		$1,268	0
E4566D	NON-HALOGENATED SOLVENTS	1,766	$713	0		$713	0
E6630	120 LITER CONTAINER - ONE WAY	3	$68	0		$68	0
E6636	1000 LITER CONTAINER (LIQUID)	20	$453	0		$453	0
E6637	0.8 CBM CONTAINER (RENTAL)	20	$453	0		$453	0
E6640	7 CBM CONTAINER (RENTAL)	20	$646	0		$646	0
E6642	FLUORESCENT BULB CONTAINER	10	$65	0		$65	0
E6652	0.6 CBM CONTAINER (RENTAL)	40	$1,422	0		$1,422	0
Total		56,491	$50,271	71	$7	$50,278	65

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CURRENT MONEY REPORT

BVN1 1348 #	OBLIGATED AMOUNT	DESCRIPTION	SEND DATE	SEND TIME	CLOSE OUT DATE
W81CJX42562008	7,674.50	BATTERY ACID	07/28/95	09:37:39	/ /
W81CJX42562010	6,906.99	CHROMIC ACID	07/28/95	09:37:39	/ /
W81CJX42562011	19,953.57	ANTI-FREEZE	07/28/95	09:37:39	/ /
W81CJX42562013	9,209.32	CADMIUM-VAT SOLUTION	07/28/95	09:37:39	/ /
W81CJX42562014	38,851.88	WASTE PAINT	07/28/95	09:37:39	/ /
W81CJX42562018	8,547.41	GREASE	07/28/95	09:37:39	/ /
W81CJX42562036	364.54	OIL FILTERS	07/28/95	09:37:39	/ /
W81CJX42562037	518.03	GREASE	07/28/95	09:37:39	/ /
W81CJX42562038	755.55	USED ABSORBENT	07/28/95	09:37:39	/ /
W81CJX42562039	1,083.63	CONTAMINATED RAGS	07/28/95	09:37:39	/ /
W81CJX42562040	831.40	AEROSOL CANS, PARTIALLY F	07/28/95	09:37:39	/ /
W81CJX42562041	703.49	EMPTY CANS	07/28/95	09:37:39	/ /
W81CJX42952042	7,441.93	WASTE OIL, CATEGORY I	07/28/95	09:37:39	/ /
W81CJX42952043	5,174.50	WASTE OIL, CATEGORY II	07/28/95	09:37:39	/ /
WK4RXH42641015	511.63	HYDRAULIC FLUID	07/28/95	09:37:39	/ /
WK4RXH42641016	3,069.78	PAINT WASTE SOLID	07/28/95	09:37:39	/ /
WK4RXH43536062	1,465.20	STB	07/28/95	09:37:39	12/21/94
WK4RXH43536063	1,170.00	DISINFECTANT, FOOD SERVIC	07/28/95	09:37:39	12/24/94
WK4RXH50426067	501.60	M13A2, FILTER ELEMENT SET	07/28/95	09:37:39	02/24/95
TOTAL	114,734.95				

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CONTRACT STATUS REPORT
U.S. DOLLARS

CONTRACT	AWARD	TOTAL OBLIGATED	OBLIGATED REMOVALS	SPENT ON REMOVALS	OBLIGATED HW TURNINS	HM PENDING	MIPR REMOVALS	MIPR TURNINS	MIPR HM
DAJA37-94-D-0038	250,000	4	0	0	4	0	0	0	0
DAJA37-95-D-0003	500,000	8,475	8,475	0	0	0	0	0	0
SP4420-95-R-0002	450,000	3	0	0	3	0	0	0	0
SP4420-96-D-0001	100,000	33,992	33,992	6,688	0	4	232,597	0	0
TOTAL	1,300,000	42,475	42,468	6,688	7	4	232,597	0	0

Total Obligated: ..... Obligated Removals and Obligated HW Turn-ins
Obligated Removal: ..... HW Removals (MIPRs not included)
Spent on Removals: ..... Total cost of pickups to date
Obligated HW Turn-ins: ..... HW Turn-ins (MIPRs not included)
HM Pending: ..... HM Turn-ins (MIPRs not included)
MIPR Removals: ..... HW Removals using MIPRs
MIPR Turn-ins: ..... HW Turn-ins using MIPRs
MIPR HM: ..... HM Removals and Turn-ins using MIPR

ALLOCATION STATUS REPORT
U.S. DOLLARS

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DODAAC	BSB NAME	ALLOCATION	TOTAL OBLIGATED	OBLIGATED REMOVALS	SPENT ON REMOVALS	OBLIGATED HW TURNINS	HM PENDING	MIPR REMOVALS	MIPR TURNINS	MIPR HM
W81CJX	MANNHIEM	200,000	42,468	42,468	6,688	0	0	232,597	0	0
WKK700	K-TOWN	300,000	7	0	0	7	4	0	0	0
WKK800	PERMASINS	400,000	0	0	0	0	0	0	0	0
TOTAL		900,000	42,475	42,468	6,688	7	4	232,597	0	0

Total Obligated: ..... Obligated Removals and Obligated HW Turn-ins
Obligated Removal: ..... HW Removals (MIPRs not included)
Spent on Removals: ..... Total cost of pickups to date
Obligated HW Turn-ins: ..... HW Turn-ins (MIPRs not included)
HM Pending: ..... HM Turn-ins (MIPRs not included)
MIPR Removals: ..... HW Removals using MIPRs
MIPR Turn-ins: ..... HW Turn-ins using MIPRs
MIPR HM: ..... HM Removals and Turn-ins using MIPRs

DOCUMENT NUMBER LISTING

RECORD	DOCUMENT NUMBER	HAZARDOUS WASTE/MATERIAL DESCRIPTION	REMOVAL (R) TURN-IN (T)	NSN	HIN/CLIN	TOTAL OBLIGATION
3	W81CJX53312603	120 LITER CONTAINER - ONE WAY	R	8145-00-CONTAIN	E6630	$67.89
4	W81CJX53312604	1000 LITER CONTAINER (LIQUID)	R	8145-00-CONTAIN	E6636	$452.61
5	W81CJX53312605	0.8 CBM CONTAINER (RENTAL)	R	8145-00-CONTAIN	E6637	$452.61
6	W81CJX53312606	7 CBM CONTAINER (RENTAL)	R	8145-00-CONTAIN	E6640	$646.50
7	W81CJX53312607	FLUORESCENT BULB CONTAINER	R	8145-00-CONTAIN	E6642	$64.65
8	W81CJX53312608	0.6 CBM CONTAINER (RENTAL)	R	8145-00-CONTAIN	E6652	$1,422.42
9	W81CJX53312609	MIXED DRY BATTERIES	R	DRY -BA-TTERIES	E0505	$169.60
19	W81CJX53312609	DRY CELL BATTERIES	R	DRY -BA-TTERIES	E0505A	$-169.60
10	W81CJX53312615	AEROSOL CANS W/HAZ RESIDUALS	R	SPRA-Y -CANS	E4506	$131.22
20	W81CJX53312615	AEROSOL CANS W HARMF RESIDUES	R	SPRA-Y -CANS	E4506A	$-131.22
11	W81CJX53312616	NON-HALOGENATED SOLVENTS	R	NON -H -SOLVENT	E4566	$179.64
21	W81CJX53312616	NON-HALOGENATED SOLVENTS	R	NON -H -SOLVENT	E4566A	$-179.64
12	W81CJX53552623	ANTI-FREEZE	R	ANTI-FR-EEZE	E2038B	$1,611.61
23	W81CJX53552623	ANTI-FREEZE	R	ANTI-FR-EEZE	E2038B	$-135.94
13	W81CJX53552625	FLUORESCENT LIGHT TUBES	R	LIGH-T -BULBS	E2145B	$1,847.20
24	W81CJX53552625	FLUORESCENT LIGHT TUBES	R	LIGH-T -BULBS	E2145B	$-177.33
14	W81CJX53552626	SOLID/PART SOLID PAINT	R	WAST-E -PAINT	E3122B	$10,032.75
25	W81CJX53552626	SOLID/PART SOLID PAINT	R	WAST-E -PAINT	E3122B	$-2,635.27
15	W81CJX53552630	GREASE, AUTOMOTIVE	R	USED-GR-EASE	E3966B	$2,238.96
26	W81CJX53552630	GREASE, AUTOMOTIVE	R	USED- G-REASE	E3966B	$-1,574.34
16	W81CJX53552631	NON-HALOGENATED SOLVENTS	R	USED-SO-LVENT	E4566B	$1,424.28
27	W81CJX53552631	NON-HALOGENATED SOLVENTS	R	USED-SO-LVENT	E4566B	$-933.45
17	W81CJX53552632	NON-HALOGENATED SOLVENTS	R	USED-SO-LVENT	E4566D	$388.60
28	W81CJX53552632	NON-HALOGENATED SOLVENTS	R	USED-SO-LVENT	E4566D	$-90.93
29	W81CJX61012650	LEAD ACID BATTERIES	R	LEAD-BA-TTERIES	E0508B	$238.11
30	W81CJX61012651	ANTI-FREEZE	R	ANTI-FR-EEZE	E2038B	$571.44
31	W81CJX61012652	FLUORESCENT LIGHT TUBES	R	LIGH-T -TUBES	E2145B	$921.77
32	W81CJX61012653	SOLID/PART SOLID PAINT	R	WAST-E -PAINT	E3122B	$547.62
33	W81CJX61012654	OIL CONTAMINATED SOLIDS	R	OILY-SO-LIDS	E3907B	$2,897.97
34	W81CJX61012655	NON-HALOGENATED SOLVENTS	R	USED-SO-LVENTS	E4566B	$191.84
35	W81CJX61012660	BATTERY ACID	R	BATT-ER-Y ACID	E1330D	$571.60
36	W81CJX61012661	ANTI-FREEZE	R	ANTI-FR-EEZE	E2038B	$1,496.80
37	W81CJX61012662	ANTI-FREEZE	R	ANTI-FR-EEZE	E2038D	$1,601.38
38	W81CJX61012663	FLUORESCENT LIGHT TUBES	R	LIGH-T -TUBES	E2145B	$1,972.80
39	W81CJX61012664	SOLID/PART SOLID PAINT	R	WAST-E -PAINT	E3122B	$4,592.25
40	W81CJX61012665	PHOTOGRAPHIC WASTE (MIXTURES)	R	PHOT-O -CHEMICA	E3704D	$655.11
41	W81CJX61012666	OIL CONTAMINATED SOLIDS	R	OILY-SO-LIDS	E3907B	$8,164.00
42	W81CJX61012667	FILTERS	R	OIL -FI-LTERS	E3919B	$387.78
43	W81CJX61012668	GREASE, AUTOMOTIVE	R	USED-GR-EASE	E3966B	$1,132.74
44	W81CJX61012669	NON-HALOGENATED SOLVENTS	R	USED-SO-LVENTS	E4566B	$585.10
45	W81CJX61012670	NON-HALOGENATED SOLVENTS	R	USED-SO-LVENTS	E4566D	$415.00
46	W81CJX61012671	BATTERY ACID	R	BATT-ER-Y ACID	E1330B	$421.80
47	W81CJX61012672	CHROMIC - / HYDROCHLORIC ACID	R	INOR-GA-ACIDS	E1343D	$6,939.00
48	W81CJX61012673	DRY CELL BATTERIES	R	DRY -CE-LL BATT	E0505B	$864.00
1	WKK70050197257	HYDRAULIC FLUID A.T.	T	5150-06-6574959	E3950A	$0.00
2	WKK70052927796	SEALING CMPDS, ADHESIVES	T	8030-00-1817529	E2307A	$4.42
18	WKK70060377871	DS2 DECONTAMINATING AGENT	T	6850-00-7534827	E1914A	$2.94
22	WKK70061167985	RUST INHIBITOR	T	8010-00-2921127	E4566A	$3.91

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PICKUP RECORD	MANIFEST	PICKUP DATE	WASTE DESCRIPTION
1	2260-1012784	02/14/96	FLUORESCENT LIGHT TUBES
10	2260-1014183	04/15/96	FLUORESCENT LIGHT TUBES
12	2260-1014251	04/24/96	SOLID/PART SOLID PAINT
13	2260-1014252	04/24/96	ANTI-FREEZE
14	2260-1014252	04/24/96	ANTI-FREEZE
15	2260-1014252	04/24/96	ANTI-FREEZE
16	2260-1014252	04/24/96	ANTI-FREEZE
17	2260-1014252	04/24/96	ANTI-FREEZE
11	2260-1014253	04/24/96	GREASE, AUTOMOTIVE

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Hazardous Waste Disposal Obligations In dCAS And Not ODM

Document Number	Julian Date	Amount($)
W81CJX52927786	6058	35.36
W81CJX52927787	6058	154.71
W81CJX52927788	6058	2.21
W81CJX52927789	6058	22.10
W81CJX52927790	6058	8.84
W81CJX52927791	6058	17.68
W81CJX52927792	6058	8.84
W81CJX60127835	6128	54.29
W81CJX60227836	6103	28.89
W81CJX60227837	6103	2.75
W81CJX60227838	6128	14.29
W81CJX60227839	6103	6.69
W81CJX60227840	6103	11.15
W81CJX60237842	6103	41.85

Total Obligations in dCAS and not ODM: 409.65

08/29/96

Hazardous Waste Obligations In ODM And Not dCAS

ODM Record	ODM Document Number	Type	Date Entered	Obligation Amount($)
3	W81CJX53312603	Removal	08/29/96	67.89
4	W81CJX53312604	Removal	08/29/96	452.61
5	W81CJX53312605	Removal	08/29/96	452.61
6	W81CJX53312606	Removal	08/29/96	646.50
7	W81CJX53312607	Removal	08/29/96	64.65
8	W81CJX53312608	Removal	08/29/96	1,422.42
9	W81CJX53312609	Removal	08/29/96	169.60
19	W81CJX53312609	Removal	08/29/96	-169.60
10	W81CJX53312615	Removal	08/29/96	131.22
20	W81CJX53312615	Removal	08/29/96	-131.22
11	W81CJX53312616	Removal	08/29/96	179.64
21	W81CJX53312616	Removal	08/29/96	-179.64
12	W81CJX53552623	Removal	08/29/96	1,611.61
23	W81CJX53552623	Removal	08/29/96	-135.94
13	W81CJX53552625	Removal	08/29/96	1,847.20
24	W81CJX53552625	Removal	08/29/96	-177.33
14	W81CJX53552626	Removal	08/29/96	10,032.75
25	W81CJX53552626	Removal	08/29/96	-2,635.27
15	W81CJX53552630	Removal	08/29/96	2,238.96
26	W81CJX53552630	Removal	08/29/96	-1,574.34
16	W81CJX53552631	Removal	08/29/96	1,424.28
27	W81CJX53552631	Removal	08/29/96	-933.45
17	W81CJX53552632	Removal	08/29/96	388.60
28	W81CJX53552632	Removal	08/29/96	-90.93
29	W81CJX61012650	Removal	08/29/96	238.11
30	W81CJX61012651	Removal	08/29/96	571.44
31	W81CJX61012652	Removal	08/29/96	921.77
32	W81CJX61012653	Removal	08/29/96	547.62
33	W81CJX61012654	Removal	08/29/96	2,897.97
34	W81CJX61012655	Removal	08/29/96	191.84
35	W81CJX61012660	Removal	08/29/96	571.60
36	W81CJX61012661	Removal	08/29/96	1,496.80
37	W81CJX61012662	Removal	08/29/96	1,601.38
38	W81CJX61012663	Removal	08/29/96	1,972.80
39	W81CJX61012664	Removal	08/29/96	4,592.25
40	W81CJX61012665	Removal	08/29/96	655.11
41	W81CJX61012666	Removal	08/29/96	8,164.00
42	W81CJX61012667	Removal	08/29/96	387.78
43	W81CJX61012668	Removal	08/29/96	1,132.74
44	W81CJX61012669	Removal	08/29/96	585.10
45	W81CJX61012670	Removal	08/29/96	415.00
46	W81CJX61012671	Removal	08/29/96	421.80
47	W81CJX61012672	Removal	08/29/96	6,939.00
48	W81CJX61012673	Removal	08/29/96	864.00
1	WKK7005019[illegible]	Turn-in	08/29/96	0.00
2	WKK7005297796	Turn-in	08/29/96	4.42
18	WKK7006037871	Turn-in	08/29/96	2.94
22	WKK7006117965	Turn-in	08/29/96	3.91
Total ODM Obligations not in dCAS:				50,282.20

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1348 Variance Report For Hazardous Waste Obligations: ODM Vs. dCAS

Tolerance level for this report: 1.00

W81CJX53312603

ODM Record #	3	/	/	REMOVAL	67.89
ODM Record Total:					67.89
dCAS DATE 6058					35.36
dCAS Record Total:					35.36
DD-1348 Variance:					32.53
Total Variance					32.53

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TSDF REPORT

TSDF ID	Gold Copy Received	Contract	Truck License Number	Pickup Quantity	Unit of Measure	Act/ Est	Waste Description
H19139480							
	NO	SP4420-96-D-0001	LU-C-6855	85	KG	Act	GREASE, AUTOMOTIVE
	NO	SP4420-96-D-0001	LU-C-6855	304	KG	Act	SOLID/PART SOLID PAINT
	NO	SP4420-96-D-0001	LU-C-6855	284	KG	Act	ANTI-FREEZE
	NO	SP4420-96-D-0001	LU-C-6855	200	KG	Act	ANTI-FREEZE
	NO	SP4420-96-D-0001	LU-C-6855	460	KG	Act	ANTI-FREEZE
	NO	SP4420-96-D-0001	LU-C-6855	200	KG	Act	ANTI-FREEZE
	NO	SP4420-96-D-0001	LU-C-6855	50	KG	Act	ANTI-FREEZE
	YES	SP4420-96-D-0001	LU-A-905	237	KG	Act	SOLID/PART SOLID PAINT
	YES	SP4420-96-D-0001	LU-A-905	566	KG	Act	NON-HALOGENATED SOLVENTS
	YES	SP4420-96-D-0001	LU-PG-236	1,934	KG	Act	SOLID/PART SOLID PAINT
	YES	SP4420-96-D-0001	LU-PG-236	343	KG	Act	SOLID/PART SOLID PAINT
	YES	SP4420-96-D-0001	LU-H-9104	249	KG	Act	NON-HALOGENATED SOLVENTS
	YES	SP4420-96-D-0001	LU-H-9109	153	KG	Act	GREASE, AUTOMOTIVE
	YES	SP4420-96-D-0001	LU-C-6855	287	KG	Act	NON-HALOGENATED SOLVENTS
	YES	SP4420-96-D-0001	LU-C-6855	1,597	KG	Act	SOLID/PART SOLID PAINT
TSDF Total				6,949			
S88040273							
	NO	SP4420-96-D-0001	LU-C-6255	160	KG	Act	FLUORESCENT LIGHT TUBES
	NO	SP4420-96-D-0001	LU-C-6855	267	KG	Act	FLUORESCENT LIGHT TUBES
TSDF Total				427			
Total				7,376			

MIPR REPORT

Record Number	1348 Number	Removal Turn-in	(R) (T)	Unit Price	Unit Of Measure	Quantity	Removal Oblig.	Total Weight	Turn-in Costs	HIN/ CLIN	Desrciption
48	W81CJX61012673	R		0.86400	KG	1,000	864.00	0	0	E0505B	DRY CELL BATTERIES
47	W81CJX61012672	R		1.15650	KG	6,000	6,939.00	0	0	E1343D	CHROMIC - / HYDROCHLORIC ACID
	Total for:	R				7,000	7,803.00	0	0		
Total						7,000	7,803.00	0	0		

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HIN/CLIN Listing
(From HIN.DBF)

Record Number	HIN/CLIN	HIN/CLIN Description
1	E0024B	BERYLLIUM COMPOUNDS
2	E0501B	BATTERIES, LITHIUM/SULFUR DIOX
3	E0502B	BATTERIES, MAGNESIUM
4	E0503B	BATTERIES, NICKEL CADMIUM-DRY
5	E0504B	BATTERIES, MERCURY
6	E0505	MIXED DRY BATTERIES
7	E0507B	BATTERIES, ALKALINE
8	E0508	LEAD/ACID BATTERIES-UNDRAINED
9	E0508B	LEAD/ACID BATTERIES-UNDRAINED
10	E0510B	BATTERIES, ZINC CARBON
11	E0511	LEAD/ACID BATTERIES-DRAINED
12	E0600B	GAS, COMPRESSED CYLINDERS
13	E1303B	ACIDS, LIQUID
14	E1304B	ACIDS, SOLID
15	E1330	BATTERY ACIDS, USED
16	E1343	HYDROCHLORIC ACID SOLUTIONS
17	E1362	CHROMIC ACID SOLUTIONS
18	E1672B	CAUSTICS, LIQUID
19	E1673B	AMMONIA, LIQUID
20	E1682B	CAUSTICS, SOLID
21	E1914B	DS2 DECONTAMINATING AGENT
22	E2006B	MERCURY COMPOUNDS
23	E2021B	OXIDES
24	E2022B	MERCURIC SOLUTIONS
25	E2024B	CHROMIUM COMPOUNDS, LIQUID
26	E2025B	CHROMIUM COMPOUNDS, SOLID
27	E2038	ETHYLENE GLYCOL (ANTI-FREEZE)
28	E2044B	DETERGENTS, LIQUID
29	E2045B	DETERGENTS, SOLID
30	E2100	SAND BLAST RESIDUE
31	E2120B	PAINT CONT. SAND BLAST RESIDUE
32	E2136	FLY ASH
33	E2145	FLUORESCENT TUBES,NA/HG LAMPS
34	E2145	FLUROESCENT TUBES,NA/HG LAMPS
35	E2145B	FLUORESCENT TUBES
36	E2307B	SEALING CMPDS, ADHESIVES
37	E2331B	CHLORINATED LIME
38	E2332B	BLEACH, SOLID
39	E2333B	BLEACH, LIQUID
40	E2339B	NITRATES
41	E2382B	CHARCOAL, ACTIVATED
42	E2917B	CYANIDE COMPOUNDS, SOLID
43	E2919B	CYANIDE SOLUTIONS, LIQUID
44	E2926	CADMIUM-VAT SOLN W W/O HVY MTL
45	E2926	PLATING WASTE W OR W/O HVY MTL
46	E3120	LIQ PAINT CONT. W/NON HAL SOVT
47	E3121	LIQ PAINT CONT. W/HAL SOVENTS
48	E3122	SOLID/PARTIALLY SOLID PAINT
49	E3122B	SOLID/PARTIALLY SOLID PAINT
50	E3123	PAINT STRIPPER MIXTURE
51	E3132	PAINT SLUDGE
52	E3132B	PAINT SLUDGE
53	E3134B	PAINT/PAINT RELATED MAT, LIQ
54	E3138	PAINT THINNER
55	E3139	PAINT RELATED MATERIAL
56	E3139B	PAINT RELATED MATERIAL
57	E3440B	PESTICIDES, LIQUID
58	E3441B	PESTICIDES, SOLID
59	E3704	PHOTOGRAPHY WASTES, MISC
60	E3719	PHOTOGRAPHY FIXER
61	E3720	PHOTOGRAPHY DEVELOPER
62	E3722B	PHOTOGRAPHIC BLEACH
63	E3733B	PHOTOGRAPHIC CLEANER
64	E3734B	PHOTOGRAPHIC DEVELOPER, LIQUID
65	E3735B	PHOTOGRAPHIC DEVELOPER, SOLID
66	E3736B	PHOTOGRAPHIC FIXER, LIQUID
67	E3737B	PHOTOGRAPHIC FIXER, SOLID
68	E3738B	PRINTING PRODUCTS, LIQUID
69	E3739B	PRINTING PRODUCTS, SOLID
70	E3907	OIL CONTAMINATED SOLIDS-RAGS
71	E3907B	SPILL RESIDUE, POL
72	E3908	OIL CONTAMINATED SOLIDS-NO RAG
73	E3919	FILTERS CONTAMINATED W/POL
74	E3919B	FILTERS CONTAMINATED W/POL
75	E3939	WASTE CLEANING COMPOUNDS
76	E3941	OIL/OIL SLUDGE O/W SEP/TANK
77	E3943	GLYCOL ETHERS, BRAKE/HYDRAULIC
78	E3950	POL PRODUCTS, GREASE SYNTHETIC
79	E3950B	POL PRODUCTS, LIQUID
80	E3951	MIXED POL PRODUCTS-LIQUID
81	E3966	GREASE (FAT WASTES)
82	E3970	OIL CONTAMINATED ABSORBANTS
83	E3971B	POL PRODUCTS, SOLID
84	E3974	RAGS CONTAMINATED W/POL
85	E3977B	WASTE OIL - CATEGORY I
86	E3977C	WASTE OIL - CATEGORY I
87	E3978B	WASTE OIL - CATEGORY II
88	E3978C	WASTE OIL - CATEGORY II
89	E4204B	REACTIVES, MISC
90	E4206B	PEROXIDES
91	E4503	EMPTY AEROSOL CANS
92	E4506	AEROSOL CANS W/HAZ RESIDUALS
93	E4506B	AEROSOL CANS W/HAZ RESIDUALS
94	E4537	NON-HALOGENATED SOLVENT SLUDGE
95	E4566	NON HALOGENATED SOLVENTS-USED

96	E4566	NON-HALOGENATED SOLVENTS-USED
97	E4566B	NON-HALOGENATED SOLVENTS-USED
98	E4571	HALOGENATED SOLVENTS SLUDGES
99	E4573	NON HALOGENATED SOLVENT SLUDGE
100	E4577B	IMPREGNATING KITS FOR CLOTHING
101	E4591	HALOGENATED SOLVENTS
102	E4591B	HALOGENATED SOLVENTS
103	E4596B	WATER PURIFICATION KIT
104	E4757B	PHENOL SOLUTIONS
105	E5509	POL CONTAMINATED SOIL
106	E5621B	ASBESTOS, FRIABLE
107	E5622	ASBESTOS CONTAINING ITEMS
108	E5622B	ASBESTOS CONTAINING ITEMS
109	E5626B	FORMALDEHYDE
110	E5633	WOOD/DEBRIS W/PCP DDD DDE CREO
111	E5633B	WOOD/DEBRIS W/PCP DDD DDE CREO
112	E5644	ASHES FROM MUNITIONS DESTRUCT
113	E6003B	TALC
114	E6020B	SPILL RESIDUE, MISC
115	E6040B	DESICCANTS, UNUSED
116	E6069B	CHLORIDE SALTS
117	E6089	CONTAINERS EMPTY-POL PRODUCTS
118	E6089B	CONTAINERS EMPTY-POL PRODUCTS
119	E6093	EMPTY PAINT CANS
120	E6096B	CARBONATES/PHOSPHATES
121	E6100	PLASTIC CONTAINER-HAZ CONTENTS
122	E6107B	EMPTY CONTAINERS REQ CLEANING
123	E6116	EMPTY OIL CANS
124	E6121	NON-FERROUS METAL CONTAINERS
125	E6122	METAL CANS-POL/PAINT PRODUCTS
126	E6146B	TRICRESYL PHOSPHATE
127	E6148B	FIRE EXTINGUISHER CHEM., SOLID
128	E6150B	FIRE EXTINGUISHER CHEM., LIQ
129	E6608A	IDENTIFICATION OF UNKOWN LIQ
130	E6608B	IDENTIFICATION OF UNKOWN SOLID
131	E6620A	IDENTIFICATION PCB IN ELEC EQP
132	E6620B	IDENTIFICATION PCB IN WASTEOIL
133	E6621	COMPLETE CHEM. ANALYSIS-TREAT
134	E6621A	pH
135	E6621B	CHROMIUM VI
136	E6621C	CYANIDE, FREE
137	E6621D	NITRITE
138	E6621E	ARSENIC
139	E6621F	LEAD
140	E6621G	CADMIUM
141	E6621H	COPPER
142	E6621I	ZINC
143	E6621J	PHENOL
144	E6621K	TOTAL ORGANIC HALOGENS (AOX)
145	E6621L	EXTRACTABLE ORGANIC HALOGENS
146	E6621M	NON-VOLATILE FATTY SUBSTANCES
147	E6621N	EXTRACTABLE PORTION OF ORIGINL
148	E6622	COMPLETE CHEM. ANALY-INCINERTE
149	E6622A	TOTAL CHLORINE
150	E6622B	TOTAL SULFUR
151	E6622C	FLASH POINT
152	E6622D	HEAT VALUE
153	E6622E	ZINC
154	E6622F	MERCURY
155	E6622G	CADMIUM
156	E6622H	COPPER
157	E6622I	FLUORINE
158	E6622J	BROMINE
159	E6622K	IODINE
160	E6623	COMPLETE CHEM. ANALY-LANDFILL
161	E6623A	VOLATILE RESIDUE AFTER IGNITE%
162	E6623B	WATER SOLUBILITY %
163	E6623C	CONDUCTIVITY IN EXTRACT
164	E6623D	ARSENIC IN EXTRACT
165	E6623E	LEAD IN EXTRACT
166	E6623F	CADMIUM IN EXTRACT
167	E6623G	CHROMIUM VI IN EXTRACT
168	E6623H	COPPER IN EXTRACT
169	E6623I	NICKEL IN EXTRACT
170	E6623J	MERCURY IN EXTRACT
171	E6623K	ZINC IN EXTRACT
172	E6623L	FLUORIDE IN EXTRACT
173	E6623M	FREE CYANIDES IN EXTRACT
174	E6623N	STRENGTH OF ORIGINAL SUBSTANCE
175	E6623O	EXTRACTABLE LIPOPHILICS
176	E6623P	TOTAL ORGANIC CARBON
177	E6623Q	PHENOL IN EXTRACT
178	E6623R	ADSORBABLE ORGANIC HALOGENS
179	E6623S	CHLORIDE IN EXTRACT
180	E6623T	SULFATE IN EXTRACT
181	E6623U	AMMONIUM IN EXTRACT
182	E6623V	NITRITE IN EXTRACT
183	E6624	COMPLETE CHEM. ANALY-UNDGROUND
184	E6624A	PERCENT WATER
185	E6624B	MELTING POINT
186	E6624C	BOILING POINT
187	E6624D	VAPOR PRESSURE AT 30 DEGREES
188	E6625A	SAMPLING OF WASTES-INCINERATON
189	E6625B	SAMPLING OF WASTES-TREATMENT
190	E6625C	SAMPLING OF WASTES-LANDFILL
191	E6625D	SAMPLING OF WASTES-UNDERGROUND
192	E6625E	SAMPLING OF OILS-ELECTRIC EQP
193	E6625F	SAMPLING OF UNKOWN LIQUIDS
194	E6625G	SAMPLING OF UNKOWN SOLID
195	E6627	30 LITER CONTAINER (RENTAL)
196	E6628	60 LITER CONTAINER - ONE WAY

197	E6629	60 LITER CONTAINER (RENTAL)
198	E6630	120 LITER CONTAINER - ONE WAY
199	E6631	120 LITER CONTAINER (RENTAL)
200	E6632	200 LITER CONTAINER (RENTAL)
201	E6633	200 LITER CONTAINER-BRAKE FLUD
202	E6634	200 LITER CONTAINER - ONE WAY
203	E6635	240 LITER CONTAINER (RENTAL)
204	E6636	1000 LITER CONTAINER (LIQUID)
205	E6637	0.8-1.1 CBM CONTAINER (RENTAL)
206	E6638	BIG BAGS - 1 CBM CONTAINER
207	E6639	5 CBM CONTAINER (RENTAL)
208	E6640	7 CBM CONTAINER (RENTAL)
209	E6641	10 CBM CONTAINER (RENTAL)
210	E6642	FLUORESCENT BULB CONTAINER
211	E6644	450 LITER ASF CONTAINER (RENT)
212	E6646	3 CBM CONTAINER (RENTAL)
213	E7028B	SPILL RESIDUE, PCB
214	E7039B	PCB OIL
215	E7051B	EQUIPMENT CONTAINING PCB
216	E8006B	CHEMICAL DEFENSE EQUIPMENT KIT
217	E8007	LABORATORY CHEMICALS - SOLID
218	E8007B	LABORATORY CHEMCIALS, SOLID
219	E8008	LABORATORY CHEMICALS - LIQUID
220	E8008B	LABORATORY CHEMCIALS, LIQUID
221	E8009B	MEDICAL ITEMS, SOLID
222	E8010B	MEDICAL ITEMS, LIQUID

DUPLICATE REPORT
For Master.dbf

08/29/96

Duplicate 1348 Number	DRMO	Record Number	Quantity	Total Weight	Unit Price	Close out Date
W81CJX53312609	R	9	250.00	0.00	0.68	04/30/96
W81CJX53312609	R	19	-250.00	0.00	0.68	04/30/96
W81CJX53312615	R	10	200.00	0.00	0.66	04/30/96
W81CJX53312615	R	20	-200.00	0.00	0.66	04/30/96
W81CJX53312616	R	11	300.00	0.00	0.60	04/30/96
W81CJX53312616	R	21	-300.00	0.00	0.60	04/30/96
W81CJX53552623	R	12	2,300.00	0.00	0.70	04/30/96
W81CJX53552623	R	23	-194.00	0.00	0.70	04/30/96
W81CJX53552625	R	13	1,000.00	0.00	1.85	04/30/96
W81CJX53552625	R	24	-96.00	0.00	1.85	04/30/96
W81CJX53552626	R	14	10,500.00	0.00	0.96	04/30/96
W81CJX53552626	R	25	-2,758.00	0.00	0.96	04/30/96
W81CJX53552630	R	15	1,900.00	0.00	1.18	04/30/96
W81CJX53552630	R	26	-1,336.00	0.00	1.18	04/30/96
W81CJX53552631	R	16	2,600.00	0.00	0.55	04/30/96
W81CJX53552631	R	27	-1,704.00	0.00	0.55	04/30/96
W81CJX53552632	R	17	1,000.00	0.00	0.39	04/30/96
W81CJX53552632	R	28	-234.00	0.00	0.39	04/30/96

DATA INTEGRITY REPORT

08/29/96

Data Base	Record#	Problem
MASTER	1	Delivery Order cannot be blank for HM
MASTER	22	Delivery Order cannot be blank for HM

FISCAL YEAR REPORT

RECORD	DOCUMENT NUMBER	HAZARDOUS WASTE/MATERIAL DESCRIPTION	REMOVAL (R) TURN-IN (T)	NSN	HIN/CLIN	TOTAL OBLIGATION
FY: 1996						
HAZARDOUS MATERIAL						
1	WKK70050197257	HYDRAULIC FLUID A.T.	T	5150-06-6574959	E3950A	$0.00
Summary for 1996 HAZARDOUS MATERIAL						$0.00
HAZARDOUS MATERIAL						
3	W81CJX53312603	120 LITER CONTAINER - ONE WAY	R	8145-00-CONTAIN	E6630	$67.89
4	W81CJX53312604	1000 LITER CONTAINER (LIQUID)	R	8145-00-CONTAIN	E6636	$452.61
5	W81CJX53312605	0.8 CBM CONTAINER (RENTAL)	R	8145-00-CONTAIN	E6637	$452.61
6	W81CJX53312606	7 CBM CONTAINER (RENTAL)	R	8145-00-CONTAIN	E6640	$646.50
7	W81CJX53312607	FLUORESCENT BULB CONTAINER	R	8145-00-CONTAIN	E6642	$64.65
8	W81CJX53312608	0.6 CBM CONTAINER (RENTAL)	R	8145-00-CONTAIN	E6652	$1,422.42
9	W81CJX53312609	MIXED DRY BATTERIES	R	DRY -BA-TTERIES	E0505	$169.60
19	W81CJX53312609	DRY CELL BATTERIES	R	DRY -BA-TTERIES	E0505A	$-169.60
10	W81CJX53312615	AEROSOL CANS W/HAZ RESIDUALS	R	SPRA-Y -CANS	E4506	$131.22
20	W81CJX53312615	AEROSOL CANS W HARMF RESIDUES	R	SPRA-Y -CANS	E4506A	$-131.22
11	W81CJX53312616	NON-HALOGENATED SOLVENTS	R	NON -H -SOLVENT	E4566	$179.64
21	W81CJX53312616	NON-HALOGENATED SOLVENTS	R	NON -H -SOLVENT	E4566A	$-179.64
12	W81CJX53552623	ANTI-FREEZE	R	ANTI-FR-EEZE	E2038B	$1,611.61
23	W81CJX53552623	ANTI-FREEZE	R	ANTI-FR-EEZE	E2038B	$-135.94
13	W81CJX53552625	FLUORESCENT LIGHT TUBES	R	LIGH-T -BULBS	E2145B	$1,847.20
24	W81CJX53552625	FLUORESCENT LIGHT TUBES	R	LIGH-T -BULBS	E2145B	$-177.33
14	W81CJX53552626	SOLID/PART SOLID PAINT	R	WAST-E -PAINT	E3122B	$10,032.75
25	W81CJX53552626	SOLID/PART SOLID PAINT	R	WAST-E -PAINT	E3122B	$-2,635.27
15	W81CJX53552630	GREASE, AUTOMOTIVE	R	USED-GR-EASE	E3966B	$2,238.96
26	W81CJX53552630	GREASE, AUTOMOTIVE	R	USED- G-REASE	E3966B	$-1,574.34
16	W81CJX53552631	NON-HALOGENATED SOLVENTS	R	USED-SO-LVENT	E4566B	$1,424.28
27	W81CJX53552631	NON-HALOGENATED SOLVENTS	R	USED-SO-LVENT	E4566B	$-933.45
17	W81CJX53552632	NON-HALOGENATED SOLVENTS	R	USED-SO-LVENT	E4566D	$388.60
28	W81CJX53552632	NON-HALOGENATED SOLVENTS	R	USED-SO-LVENT	E4566D	$-90.93
29	W81CJX61012650	LEAD ACID BATTERIES	R	LEAD-BA-TTERIES	E0508B	$238.11
30	W81CJX61012651	ANTI-FREEZE	R	ANTI-FR-EEZE	E2038B	$571.44
31	W81CJX61012652	FLUORESCENT LIGHT TUBES	R	LIGH-T -TUBES	E2145B	$921.77
32	W81CJX61012653	SOLID/PART SOLID PAINT	R	WAST-E -PAINT	E3122B	$547.62
33	W81CJX61012654	OIL CONTAMINATED SOLIDS	R	OILY-SO-LIDS	E3907B	$2,897.97
34	W81CJX61012655	NON-HALOGENATED SOLVENTS	R	USED-SO-LVENTS	E4566B	$191.84
35	W81CJX61012660	BATTERY ACID	R	BATT-ER-Y ACID	E1330D	$571.60
36	W81CJX61012661	ANTI-FREEZE	R	ANTI-FR-EEZE	E2038B	$1,496.80
37	W81CJX61012662	ANTI-FREEZE	R	ANTI-FR-EEZE	E2038D	$1,601.38
38	W81CJX61012663	FLUORESCENT LIGHT TUBES	R	LIGH-T -TUBES	E2145B	$1,972.80
39	W81CJX61012664	SOLID/PART SOLID PAINT	R	WAST-E -PAINT	E3122B	$4,592.25
40	W81CJX61012665	PHOTOGRAPHIC WASTE (MIXTURES)	R	PHOT-O -CHEMICA	E3704D	$655.11
41	W81CJX61012666	OIL CONTAMINATED SOLIDS	R	OILY-SO-LIDS	E3907B	$8,164.00
42	W81CJX61012667	FILTERS	R	OIL -FI-LTERS	E3919B	$387.78
43	W81CJX61012668	GREASE, AUTOMOTIVE	R	USED-GR-EASE	E3966B	$1,132.74
44	W81CJX61012669	NON-HALOGENATED SOLVENTS	R	USED-SO-LVENTS	E4566B	$585.10
45	W81CJX61012670	NON-HALOGENATED SOLVENTS	R	USED-SO-LVENTS	E4566D	$415.00
46	W81CJX61012671	BATTERY ACID	R	BATT-ER-Y ACID	E1330B	$421.80
47	W81CJX61012672	CHROMIC - / HYDROCHLORIC ACID	R	INOR-GA-ACIDS	E1343D	$6,939.00
48	W81CJX61012673	DRY CELL BATTERIES	R	DRY -CE-LL BATT	E0505B	$864.00
2	WKK70052927796	SEALING CMPDS, ADHESIVES	T	8030-00-1817529	E2307A	$4.42
18	WKK70060377871	DS2 DECONTAMINATING AGENT	T	6850-00-7534827	E1914A	$2.94
Summary for 1996 HAZARDOUS WASTE						$50,278.29
Summary for 1996						$50,278.29
FY: 1997						
HAZARDOUS WASTE						
22	WKK70061167985	RUST INHIBITOR	T	8010-00-2921127	E4566A	$3.91
Summary for 1997 HAZARDOUS MATERIAL						$3.91
Summary for 1997						$3.91
Report Summary						$50,282.20

Appendix B
The Obligation Disposal Monitor Development Process

OVERVIEW

The Obligation Disposal Monitor (ODM) was developed using the principles of Joint Application Development (JAD). The benefits of using JAD in software development is fourfold: First, prototypes can be developed quickly, shown to the end user, and rapidly altered to meet end users' needs. Second, functional experts may not realize their needs or the ability of developers to meet those needs until they have an opportunity to react to a "real" system. Third, users (or functional experts) may not have expressed their needs adequately to the program developer or, conversely, the program developer may not have understood the need the first time. Fourth, end users have a tool they can immediately start using.

Ultimately, the benefit from the constant interaction between end users and the developer is a program that truly reflects client needs. One of the drawbacks of JAD is that the early version of the program may lack some of the data validation and business rules that are later incorporated into the program. The first step in application development is determining user requirements.

Before the process can be started, functional experts need to be accessed to define and validate the system. In the case of ODM, USAREUR's 26th Army Support Group (ASG) Environmental Office in Heidelberg, Germany, sought to develop a computer-based program to track its hazardous waste disposal cost. Although the 26th ASG staff members were expert in understanding the policy, procedures, and issues of hazardous waste disposal, they lacked the system development expertise to fully undertake the task, making the Logistics Management Institute (LMI) a perfect partner for the ODM project.

INITIAL REQUIREMENTS

Before a site visit was possible, preliminary discussions led to identification of some basic initial requirements. User requirements were broken out into three areas: hardware, software, and system architecture. For hardware, the 26th ASG was using x286-, x386-, and a few x486-based computers. The initial hardware requirement was for the program to operate on all of these machines. The initial software requirement was to develop a tool using dBase III, as that was the lowest version of the dBase within the 26th ASG. At this stage, system architecture was

largely unaddressed, but the first site visit would change that along with the initial requirements.

DEVELOPING SUBSEQUENT REQUIREMENTS

Soon after developing the initial needs assessment, it became apparent that the software and hardware specifications were untenable. Not only did dBase III lack much of dBase IV's functionality, it was hopelessly difficult to develop a program that would be compatible in dBase III and dBase IV. This forced the decision for the sites with dBase III to upgrade to dBase IV. It also would be difficult to ask those installations using dBase IV to regress to dBase III.

Hardware was another issue. The x286 computers could not run the dBase IV software forcing the Base Support Battalions (BSBs) to scramble to find either x386 or x486 computers. The installations using x286 computers were pushing the limits of the hardware and welcomed the need to upgrade to either an x386 or x486 computer.

DETERMINING SYSTEM ARCHITECTURE

The next step was to determine the data structures, relationships, and flows. Since, LMI had previous experience in hazardous waste systems in the United States, some of the groundwork had been started; however, USAREUR's operations were different and required much additional analyses.

We met with 26th ASG environmental staff and reviewed and modified the initial system architecture to reflect the 26th ASG's operations. Because the 26th ASG had an immediate need for a useable tool, LMI left with them a prototype for a month while additional requirements and enhancements were incorporated. During this time, the BSBs could input their data. Within a month, another prototype was released with more features and integrity constraints. The important benefit to the ASG was they now had tool to use while development continued. At the end of the second prototype's implementation, the funds for the pilot program were depleted.

In May 1995, funds became available for additional development. Other ASGs were interested in the ODM program, so the needs analysis was broadened to incorporate the operating differences between the 26th ASG and the other ASGs into the ODM program. Table B-1 shows the release schedule of the various ODM releases.

After several meetings attended by various BSB and ASG personnel, additional requirements and features were determined. These were added into ODM. These sessions were valuable JAD tools in gaining feedback for additional development. During the training sessions, we met with all levels of ODM users at 17 sites,

Table B-1. ODM Release Schedule

ODM release	Release date	Comments
1.0	October 1994	Prototype for 26th ASG evaluation—ran in dBase IV.
1.2	November 1994	Release for 26th ASG use—ran in dBase IV.
1.3	May 1995	Release for 26th ASG—MS-DOS executable, improved interface, bug fixes.
1.4	June 1995	Release for 26th, 53rd, 98th, and 100th ASGs and their BSBs. MS-DOS executable.
1.41	June 1995	Released to Mannheim BSB. Included switch to toggle calculation mode on and off.
1.5	August 1995	Released to 6th, 26th, 53rd, 98th, and 100th ASGs and their BSBs. Contained numerous reports and features requested during July training.
2.0	September 1996	Released to 6th, 26th, 53rd, 98th, and 100th ASGs and their BSBs. Contains reconciliation and quality assurance reports.

rather than relying on the representative sample from the May 1995 requirements meeting. Here we found additional requirements for the program, most being enhancements to make it easier for the user; others related to operational differences.

ODM 1.41 was released in the field because the BSB in Mannheim, Germany, found the operation of ODM painstakingly slow on their x386 computer when calculating DD Form 1348-1 obligation status in the pickup data screen. ODM 1.41 included an enhancement enabling users to the toggle the calculation process on and off. This sped up the program considerably for Mannheim because this BSB had several hundred records that were processed each time a pickup record was either added or edited.

After installing the program at the 17 USAREUR sites, we developed recommendations for additional ODM enhancements. Given limited resources of the time and development budget, it became necessary to prioritize recommended changes by importance and difficulty. In terms of program development difficulty, enhancements fell into three categories:

- *Easy*—cosmetic changes with no affect on data structures or logic flow.
- *Moderate*—low-level changes or additions to logic flows and/or minor additions to low-level data structures.
- *Difficult*—complex changes to logic flows and changes to data structures.

Each recommendation also was rated with a priority level of high, medium, or low. These two sets of criteria made it possible to sort the list of changes and then

concentrate development efforts on items that were first easy and of high priority, then moderate and of high priority, and so on. This enabled the development effort to prioritize its efforts.

Another key to understand the recommended enhancements was to know who made them. This is important because, during the development effort, it is sometimes difficult to read field notes and remember the problem or perhaps the problem was not fully developed during the field visit. In any case, follow-up calls clarified certain requests and made it easier to address users' needs.

ODM 1.5 incorporated all of the easy changes and many of the moderate changes. The impetus for ODM 1.5 was the addition of a disclaimer message that Defense Reutilization Marketing Organization wanted printed on turn-in DD Form 1348-1s; this was an easy change. Other additions involved adding a foreign exchange calculator enabling users to take USAREUR's official exchange rate to convert from Deutsche marks and other currencies to U.S. dollars.

NEXT RELEASE

ODM 2.0 was released in late September 1996. It incorporates several new obligation reports (discussed in Chapter 3) to meet the operating differences among ASGs. In addition to modifying many of the reports to provide more information, there are several new reports to help manage data quality.

Appendix C
Glossary

ASCII	American Standard Code for Information Interchange
ASG	Army Support Group
BOSS	Base Operations Supply System
BSB	Base Support Battalion
CLIN	contract line item number
dCAS	Data-based Commitment Accounting System
DD	Defense Department
DLA	Defense Logistics Agency
DoD	Department of Defense
DoDACC	DoD activity address code
DRM	Directorate of Resource Management
DRMO	Defense Reutilization and Marketing Office
DRMR-E	Defense Reutilization and Marketing Region–Europe
DRMS	Defense Reutilization and Marketing Service
HIN	hazardous item number
JAD	Joint Application Development
LMI	Logistics Management Institute
MIPR	military interdepartmental purchase request
ODM	Obligation Disposal Monitor
RFP	request for proposals
SOFA	status of forces agreement
STNFINS	Standard Finance System
TAMMC	Theater Army Material Management Command
TSDF	treatment, storage, and disposal facility
USAREUR	U.S. Army, Europe

REPORT DOCUMENTATION PAGE

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12a. DISTRIBUTION/AVAILABILITY STATEMENT

A: Approved for public release; distribution unlimited

12b. DISTRIBUTION CODE

13. ABSTRACT ***(Maximum 200 words)***

The Obligation Disposal Monitor (ODM) system was developed to address hazardous waste and disposal monitoring and reporting needs for the 26th Army Support Group (ASG) in Heidelberg, Germany. Later, it was implemented voluntarily by many of the other ASGs in Germany. ODM was designed and implemented in stages so that the development effort could continue while the field still would have a useful tool of earlier versions to work with. Although developed as a transaction processing system, the information ODM gathers can be aggregated and displayed to provide executive-level information. In order to take maximum advantage of the benefits available from the ODM system and to avoid the shortcomings of manual processing, we recommend that do the following: require that all U.S. Army, Europe (USAREUR) ASGs, assigned Base Support Battalions (BSBs), and the 200th Theater Army Materiel Management Command use ODM; USAREUR Headquarters should require that each BSB or ASG send their *Allocation Status Report* and *Contract Status Report* to Headquarters on a monthly basis; require that each BSB or ASG submit its ODM data set quarterly; and use ODM's *Obligation Report by Ship From* to bill tenant organizations.

14. SUBJECT TERMS

Hazardous waste disposal; obligations; budgeting; USAREUR; U.S. Army, Europe

15. NUMBER OF PAGES

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16. PRICE CODE

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